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A GROUP OF BOLVARDIAS

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SEPTEMBER, 1885.

THE SUMMER just closed has been favorable to most of the interests of the farmer and the gardener. The crop products, with few exceptions, have been abundant. The deficiency in Wheat is the most marked example of shortage, but of this, with the surplus of last season, there will still be plenty. The other grains have yielded abundantly, and the country is filled with all that is needed for the next twelvemonth for the sustenance of both man and beast. The early fruits and vegetables have been freely produced, and the later ones are maturing in profusion. The Apple, the most important of the larger fruits, will be in sufficient quantity, though not in the abundance of last year. The deficiency in the Peach crop is the most noticeable, and was caused by the excessive cold weather of last winter that visited our whole country. It was thought in early summer that this crop in Delaware and Maryland would be large, but the last of July much of the fruit in that region ceased its growth, remained hard, and in that condition yet hung to the trees, but was entirely checked in development. This is a new experience to Peach growers, and which will call for close investigation. The yield of Grapes will probably be large, though in many locations there has been considerable loss by rot and mildew.

In this vicinity the fire blight of Pear trees has been very prevalent, and Apples and Quinces have shared it to some extent. Cutting away the affected parts is all that could be done; in many cases it effected but little, in others some badly mutilated trees, which if they live will never regain their symmetry, attest the severity of the attack.

The late maturing vegetables, at the present time, give abundant promise, and the Potato yield, especially, will probably be large.

While these remarks of the general prosperity of agricultural pursuits is true, as we take a view over the whole land, we cannot fail to notice the disasters that have visited various localities in many parts of the country by means of wind and rain; for the past spring and summer, like those of the two preceding years, has been marked by numerous electric storms of great severity, that have carried loss and ruin to many a family and neighborhood. The weather bureau, by its daily reports, is doing effective service to the whole community, and gardeners and farmers who carefully note the reports, frequently have positive demonstrations of their value.

The knowledge in regard to electric storms is increasing from year to year, and, as we have previously noted in these pages, one of our own citizens is pa-

tiently and laboriously collecting facts which prove with accumulating force the immediate agency of solar disturbances in producing the great electric storms with their accompanying cyclones, tornadoes, waterspouts and sudden and excessive increase in temperature. It is probable that daily solar observations with the telescope and accessory instruments will soon form an essential part of the routine of work of the national weather bureau. And we cannot say that this knowledge will be of no practical service.

It has been the custom in this part of the country to make the fall sowing of Spinach seed early in the present month. Last year and the year before the mild weather continued until late in the fall, and, as a consequence, the early sown Spinach plants became so large that it was fit for use before winter set in, and had to be used or sent to market late in the fall. Of course this diminished the quantity for spring use, and it was also inferior at that season to what it would have been if more of its growth had been made in early spring. As the unusually late falls are due to excessive solar disturbances, and these we are still experiencing, it is safe to assume that the mild weather will continue this fall until late, and therefore it will be best to postpone Spinach sowing in this latitude until the last of the month.

The present month is one of the best for seeding down new lawns. The earlier it is done the better, but any time during this month will do. A good lawn is the foundation for all garden improvements about the dwelling. Without this all other work will be comparatively worthless. Having dug or plowed the ground deep, and finely pulverized it with the harrow or the rake, and given it a smooth and even surface, it can be sowed with seed of Kentucky Blue Grass, or Red Top, or a mixture of both, or, which is still better, with a mixture known as Lawn Grass seed. Four bushels to the acre is the proper quantity. Sow the seed evenly at a time when the air is still, and then lightly rake it in, and afterwards pass a light or medium weight roller over it. The seed will germinate rapidly, a good growth of grass will be made during the fall, and the next summer will show a thick, close sward.

Some kinds of house plants that are

expected to bloom during winter will need repotting this month, and those that have been set in the garden for the summer must be removed to the house or a frame to prevent a check from the cold nights that may come. Bouvardias, Chrysanthemums, Begonias, Carnations and other plants that have been planted out for summer growth should be lifted and potted, and be properly treated to establish them for their blooming season.

The outdoor planting of Dutch bulbs will soon require attention. The sooner White Roman Hyacinths are now potted the better; for flowers during the Christmas holidays they cannot be attended to too early. About four bulbs can be placed in a five-inch pot, using about equal parts of good loam and leaf-mold with the addition of a little sand and some old well-rotted cow manure. Water after potting and stand the pots away in a shed or other sheltered place. In order to prevent the soil from drying out it is best to plunge the pots or cover them with four or five inches of coal ashes, or, if this material is not at hand, use the chip remains of the wood pile. After four or five weeks the bulbs will have sent out roots plentifully, and then they are in condition to start into growth, and may be placed in a frame or in the window, where they will have a temperature of 65° to 70°. No flowers are more prized than these in early winter. These remarks in regard to the treatment of the Roman Hyacinth will apply equally well to the Polyanthus Narcissus and the Jonquils. The potting of the common Hyacinth and Tulips can commence early and be continued at intervals for the next two months, in order to give a succession of bloom. The Duc Van Thol Tulips should be employed for the earliest blooms. In the same manner the Crocus, the Snowdrop, the Ixia and other bulbs can be attended to.

A carefully conducted trial the past spring and summer of many of the most popular varieties of Peas has shown conclusively that none of them is earlier than Vick's Extra Early, whatever claim to the contrary may be made for any of them. It is a strain that has been raised for several years with the greatest care for its purity, and will not fail to give complete satisfaction to the most exacting grower, whether for market or private use.

A TRIO OF STAWBERRIES.

Those interested in Strawberry growing may be pleased with the engravings presented herewith. The Sharpless is a variety which is now becoming very well known, and is regarded as one of the best standard varieties, both for market and home use. It gives its best results, as almost any variety will, under hill cul-

locality where they are raised—soil, climate, and the particular market where they are disposed of determining, in some measure, their worth. Many of the varieties of the highest qualities, and which are most estimable for the garden where they are to pass directly to the table, have peculiarities which unfit them for



SHARPLESS.

ture. The plant has proved to be very hardy, and it is certain to be found satisfactory wherever it is properly cultivated.

The Atlantic is a recent variety that is growing in favor. It is handsome, high flavored, ripens late, and is said to have remarkable keeping properties.

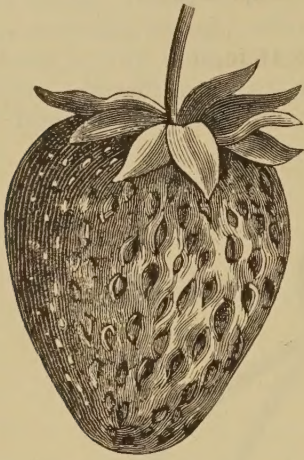
Prince of Strawberries is of recent introduction, but has made a good name for itself, and will probably soon be known by most Strawberry growers. It is remarkably vigorous, very prolific, and of superior quality and flavor.

From the great number of Strawberries now in cultivation, it is impossible to say of any two or three, or of any half-dozen or dozen, "these are the best and should have the preference of all others." The value of many varieties depends upon the

profitable cultivation for shipping to distant markets. And, on the other hand, some of the most profitable varieties for large growers, who send them to a distance, are so inferior in quality that they would be refused at the table of a connoisseur, such as every amateur grower of this most delicious fruit should be. To some extent, every Strawberry grower must test varieties for himself, but the fruits now in cultivation are all so good, and the information in regard to them so full, that there is little danger of obtaining any that is really worthless. Those who watch with anxiety the advent of every new sort of Strawberry that is sent out in these days when they come almost by dozens every season, with the hope of finding one that will be near their stand-

ard of perfection, whatever that may be, are in danger of losing sight of the fact that the quality of a Strawberry depends largely upon the manner in which it has

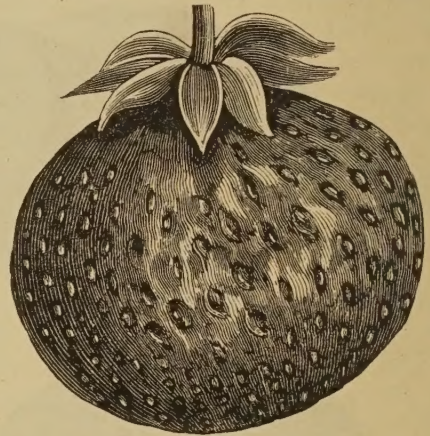
should be prepared for planting by digging or plowing in deep a good coat of well rotted stable manure. When this cannot be obtained, and the land is otherwise suitable and in a fair condition of fertility, the plants can be set, and a small amount of some good commercial fertilizer be given each plant by scattering it on the surface about it and then hoeing it in. In the spring another



ATLANTIC.

been raised. The best cultivation gives the highest quality of fruit. A deep, rich soil, clean culture, an abundant supply of water during the filling of the berry, are necessary to produce the best fruit.

The present month is a good time in the middle region of the country for setting plants. A piece of ground for a Strawberry bed should have been so cultivated as to be free from weeds; it



PRINCE OF BERRIES.

application of the same kind can be made by sowing it between the rows. In the garden set the plants eighteen inches each way; for field culture eighteen inches apart in the row, with the rows three to four feet distant, is the approved practice.

A GROUP OF BOUVARDIAS.

The Bouvardias represented in our colored plate of this month are beautiful and standard varieties. The dark colored one, *B. leiantha*, is one of the few natural species that are in common cultivation, most of the cultivated kinds being florists' varieties. *B. leiantha* is a native of Central America, where it grows in the form of a neat shrub, two or three feet in height, much branching at the top, and bearing its flowers at the extremities of its branches, from July to November. In cultivation it proves to be a very free-flowering plant. This is the darkest colored sort, and is sometimes described as scarlet, but more properly it may be said to be vermilion-red. A seedling of this plant, produced by fertilizing it with the double white variety, Alfred Neuner, is a double scarlet variety known as Thomas Meehan, named in honor of the esteemed editor of the *Gardener's Monthly*.

One of the best of the white varieties is *Davidsonii*, pure white, fragrant, and as a winter blooming variety is particularly valuable on account of the long season it continues in flower. This variety is a sport from *Hogarthii*, and was produced some years since by WILLIAM DAVIDSON, of Brooklyn, N. Y. Alfred Neuner is a sport from *Davidsonii*, and the fine double pink variety, shown in the plate, which is *President Garfield*, is a sport from Alfred Neuner.

The Bouvardia is one of the most highly prized plants by florists for winter blooming, and is largely cultivated for cut flowers. For the greenhouse and conservatory during the winter months it has special claims to attention. The ease with which it can be reared, the beauty, the fragrance, the abundance and continuance of its bloom, form a combination of qualities fitting it to grace the greenhouse that few plants possess.

CORRESPONDENCE.

AN OREGON GARDEN.

As an old Western New Yorker, from Niagara County, I take pleasure in writing of the success in sowing your vegetable and flower seeds here, in far off Oregon. For many years I had used your seeds in the alluvial soils of New York and Iowa, and as I was passing a year or two in Oregon, and had taken up a claim to amuse myself, I thought I would try my favorite recreation with plants and flowers here.

As you are aware, the entire region west of the Rockies is volcanic, as all east is alluvial. It is a reddish-grey, forbidding-looking soil, with here and there jagged, instead of smooth, water-washed gravel, and growing only Sage brush, *Artemisia tridentata*, and Bunch grass, *Festuca*. It is a rainless region in the summer, and all depends on irrigation from the rivers, or from the little streams that come down through the gulches or ravines from the mountains. My claim has one of these beautiful little streams at its head, sufficient to water forty acres, and this was my reason for selecting it. With a proportion of fifty-six per cent. of pure silica in it, it was no wonder to me that irrigated land bore fifty bushels of Wheat to the acre, and of the finest quality in the world. And the Strawberry, with its fifty-six per cent. of potash—it was not strange to me that the luscious plant took to a soil which was entirely ashes and lime, the remnant soil of an age of fire brought down from the burnt hillsides and deposited on the lower grounds. But what would be the result for roots and flowers? I had a flower lover's desire to know. In roaming the hills for elk and deer, I had noticed with delight the rich coloring of the *Lobelias*, blue and red, of the wild Rose, wild Larkspur, which is here a poisonous root to cattle, and of many flowers unknown to me by name. As I wandered, here and there, I said to myself, "these flowers are all in moist localities, and will fail with the failure of spring moisture. Can I carry them through the sum-

mer by irrigation? These are native, acclimated flowers. Can I make our old New York seeds their rivals, and instead of going so far to see the bloom, can I have it before my eyes as I leave my tent in the morning?"

At the mouth of our valley, a former correspondent of yours, and an ardent florist, had raised flowers from your seeds in such profusion that they were the admiration of the whole country, and the name of VICK became well known to many of the ranchmen and miners, who could not tell a *Petunia* from a *Portulacca*, or a *Phlox* from a *Verbena*. But, then, Mrs. BUCKLAND's locality had exemption from frost all the summer months; up here, we are liable to it every month in the year.

In the package of vegetable seeds received from your firm, you had kindly put some papers of *Petunia*, *Phlox* and *Asters*. Here was my godsend and my opportunity. I laid out my flower garden before my tent, and, farther down, made my vegetable garden. I trained my irrigating rills along the beds, bordered my walk with tufts of a beautiful native grass that had already started, fenced my ground stoutly against the unruly cattle and sturdy old bulls of the range, and sowed my seeds. Remember, this was all out of raw Sage-bush land. I had to clear it of the Sage from three to seven feet in height, and with barely room to pass between the bushes. It is a sore job to grub this tough, ash-colored, tap-rooted thing, but once up, it is dead forever, and burns green with the quickest and hottest fire. I did my cooking with it all summer.

I watched and waited. All my garden seeds had come up, every one, I think, of all I sowed; Lettuce, Radish, Onion, Parsnip, Beet, Carrot, Peas and Corn, all had come, and were showing green in the rows. One fine morning, after I had found that flower seeds could not be looked out of the ground, I saw minute patches of green. I put on my glasses

and looked more closely, they were my Petunias. It was like a patch again of my old eastern home. A few days more and the larger leaved Phlox, then the well known Aster appeared, and my start, at least, was safe. In two weeks the plants had made wondrous growth. I made my own rain from the little mountain stream, and the plants fairly drank it in. The nights were cool, but the days were at 90° in the shade, and the plants loved it well. Then came such a mass of bloom, and such richness of color as I had never had in flowers. The Petunias became fairly running vines, and were laden with white, purple and blotched flowers. The Phloxes fairly blazed back to the ceaseless sunshine, and the Asters would have followed in their turn but for a summer frost that checked the earlier buds. They recovered and gave me, at least, an assurance of what they would have been. They were a daily delight to me, and people came from seven and eight miles off to see the unwonted sight. Many pleasant visits the dear flowers and the garden brought me, and one young woman, passionately fond of flowers, and the flower of the valley herself, who came with her husband and mother, said it was the most pleasant day of her life.

Now, Mr. VICK, doesn't that pay you for putting those little packets in our garden package? My poor flowers lasted indeed, only till September, for regular frosts came then, and I learned that that was the limit, even for my hardy annuals, and that they could not even ripen their seed for another year. But it must be the more to me while it lasts, and it will be. One good woman who has a warm house, they are scarce here, said that those Petunias should not all die, and she potted some, and they are smiling in her home after the worst winter that Oregon has known.

The garden was an equal success. The Lettuce headed like Cabbage, the Radishes were brittle and wormless, the Onions were perfectly sweet with no acrid, biting quality when raw during the whole term of their growth. Parsnips, Carrots, Beets, Turnips, Cabbages, were as fine as could be; but the Peas, ah! Mr. VICK, there is where I found myself ahead of the man, even who sent me the seed. Planting the Laxton's Alpha for the first, the old Champion for the succession, I found that, with the cool nights and my little ditches, I could run my Peas into October. Think of that, men of Western New York and Iowa, where your hot suns and warm nights have mildewed your Peas in early August. I can go right along to October with plenty of this most delicious product of the garden, the Wrinkled Marrow Pea. My Potatoes took to irrigation, like all the rest, were early, smooth, solid, and perfect specimens of, to me, the most perfect of Potatoes, the Early Rose.

In conclusion, let me say, I find that, with all but Peas and Parsnips, all must have early start and early maturity, by reason of the cold nights and the early frosts. The Winningstadt for winter Cabbage, the Potato Onion, the Early Rose Potato, &c., all must have the earliest maturity, even for our winter sorts. There is this comfort, that for quality there are none better. And for flowers, the hardiest annuals and perennials are all that will pay; but where will one find flowers richer or more lovely than he can find among these!

Your correspondent, Mr. VICK, has reached his three score, but this fine, dry, mountain air, with, possibly, irrigation, like his flowers, has given him again all the strength and spirits of thirty. Good bye, and prosperity attend you and every man who loves flowers.—JOSHUA COOKE, *Bridgport, Oregon.*

PEAS—PRIZE ESSAY.

What varieties of Peas are most profitable for the market gardener, and what most desirable for the table, and what are the best methods of cultivation in each case?

The Pea is a vegetable that can only be grown to the greatest perfection in a comparatively low temperature, and

therefore it should be planted as early in spring as the ground can be worked.

The best and most profitable kinds for early market, I have found to be Blue Peter, Carter's First Crop, Bliss' American Wonder, Little Gem and Improved Daniel O'Rourke.

To grow these varieties to the greatest

perfection a warm, sunny soil is most suitable; it must be thoroughly enriched with well-rotted manure, or bone dust applied at the rate of fifteen hundred pounds to the acre, and well harrowed in. The next operation is marking out the rows, which for Carter's First Crop and Improved Daniel O'Rourke should be three inches deep and thirty inches apart. For Blue Peter, Little Gem and Bliss' American Wonder, the rows may be twenty-four inches apart. As soon as the Peas are out of the ground about two inches, hoe or cultivate between the rows, and repeat the operation at intervals of ten days for about four weeks, when a little soil may be drawn up to the rows on each side. This is all the working they will require before gathering the crop. No sticks or brush need be used. Again, I would endeavor to impress the grower with the importance of sowing just as soon as the ground can be worked, as the first Peas in the market fetch by far the highest prices. About two and one-half bushels will sow an acre.

Varieties of Peas for a family to grow for table, and mode of cultivation.

The best kinds of Peas for use for a private family are Blue Peter, Waite's Caractacus and Laxton's Alpha for first crop; McLean's Advancer and Laxton's

Prolific Long Pod for second early, and Champion of England and Telephone for later crop.

The ground should be dug deep and well manured with thoroughly rotted manure, or bone dust spread on the surface, one pound to the square yard and well raked in. Sow in double rows about eight inches apart and four inches deep, and leave a space of about thirty inches between each double row. A quart of the early varieties will sow about seventy feet of drill, of the later kinds about fifty feet.

To keep up a succession, sow as follows: April 1st, one quart of Blue Peter; April 10th, one quart Waite's Caractacus, April 20th, one quart Laxton's Alpha, April 30th, one quart McLean's Advancer; May 10th one quart Laxton's Prolific Long Pod; May 20th, one quart Champion of England; May 30th, one quart Telephone. After this date none may be sown until about the middle of August, when a quart or two of one of the early kinds may be sown for a late crop.

Laxton's Alpha will require sticks about thirty inches high; Champion of England, Telephone and Laxton's Prolific Long Pod will require sticks about four feet in height.—B. FLETCHER, *Strathroy, Ont.*

SOMETHING ABOUT PITS.

Blooming plants can be kept so easily, and at such slight expense in pits, that I would like to speak a word in their favor to the readers of the MAGAZINE. It is quite a care to keep house plants free from dust, and by spring they are apt to present rather a forlorn appearance, whereas, in a pit, with a little attention to their wants, they flourish with even greater luxuriance than in the beds in summer.

The pit should always be in a sunny spot, and may be of any size to suit individual taste; but one eight feet long by six wide, and five or six feet deep will hold quite a number of plants. If the climate is very cold, it should be a little deeper, so that the flowers can be moved lower down when the weather is unusually severe. The sides should be lined with boards or brick, or they will be apt to cave in. The top is finished off very

much like a hot-bed, and the earth should be well banked against the sides, and sodded to keep water from running in. If the pit is lined, the boards must be fitted as closely to the earth as possible, or the space between will soon be filled with mice. These little pests became so annoying in my pit at one time that I was forced to cover the Lycopodium with wire gauze, and the boxes of vegetable seeds with panes of glass. I caught numbers of them in a trap. One morning I found three or four mice and a young mole in the trap. The latter had burrowed through the side of the pit, which was not very closely ceiled.

If the water does not rise, it is not at all necessary to line it, simply put cuttings of Ivy, Tradescantia, etc., in every little crevice near the top, plant a Marechal Niel Rose in the bottom, and the sides will soon be a mass of living green.

Don't take the Rose out in the summer, but let it remain there all the year, it will bloom better this way than any other.

Flowers are rarely injured by frost when there is water in the pit, so it is no disadvantage if it does not submerge the plants. One morning, after a week's rain, I found mine full of water to the brim. I had it bailed out, but the next morning it was full again, so we tried a new remedy. The ground sloped rapidly down from the pit, and we had a trench dug on the lower side, which touched the lining of the pit several feet below the surface. A hole was then cut in the planks, the water gushed out, and was soon below the level of most of the plants. A rough pipe, made by nailing four planks together, was then put in the opening and the earth filled in above it. The rest of the trench was left open. The outer end of the pipe is kept closed with a piece of carpet, unless there are indications of "high water."

Last winter, my flowers safely stood the test of ten degrees below zero, which was the coldest weather we have had in years, with no protection but the glass. Some, however, cover the sash with an old quilt when the weather is very cold.

The cost of one the size I have mentioned, with three sashes, is about ten dollars. If possible, have a wire fence around it, and there will be less dan-

ger of the glass being broken. At one time, an entire sash of mine was broken when covered by snow, and I did not discover it for several hours. A fine collection of Fuchsias, Geraniums of every color, Heliotropes, Lemon Verbenas, etc., were all a limp, black mass. I knew by experience that they would probably not die, so I cut off most of the tops, and waited patiently. The weather was very cold and cloudy for some weeks, and they put out slowly, but by spring almost every one had revived, and were covered with buds and blossoms. I did not lose a single Fuchsia, and they bloomed as if nothing had happened. A Wax Plant and several scarlet Salvias died. I notice that a great many ladies complain of insects, but my plants are never troubled by them during the winter.

In potting flowers for winter, do not take up all the old plants, they occupy too much space. Put a number of cuttings of each kind in shallow boxes of rich earth, and by spring they will be fine bedding plants. Give air every day when the ground begins to thaw, or they will become too tender. One of my friends, who owns a handsome conservatory, has it filled with vines, Ferns, Fuchsias, etc., while the Geraniums, Heliotropes, and other sun-loving plants are banished to the pit, where they bloom so much better.—V. V.

SPROUTS, OR DWARF GERMAN GREENS.

Under the rather indefinite name of Sprouts, we have a variety of Borecole, or Kale, that is very extensively grown by market gardeners in the vicinity of New York city, for use as greens during the early spring months. It can be found described in any seed catalogue under the name of Dwarf German Greens. In its foliage and manner of growth it somewhat resembles the Ruta Baga Turnip, only the leaves are more finely cut and of a bluish-green color. It is by most persons considered to be far inferior to Spinach, while others consider it quite the reverse. Now, I think that this diversity of opinion is due, to a considerable extent, to the way in which it is prepared for table use, and I cannot do more than to insist on all giving it a fair trial, feeling confident that many will find it to be a very desirable addition to

their list of garden vegetables, as it is one that is ready for use very early in the spring, and it often happens that it can be gathered for use during the winter; in this case, if it is frozen when cut thaw it out in cold water before boiling.

This is a vegetable that requires but little skill or care to cultivate successfully, but as it is rather difficult to keep over in some soils during winter, it should be grown in a sheltered situation and on light soil, and in order to secure a satisfactory crop the ground should be thoroughly and properly prepared. This can best be done by giving a good dressing of well-decomposed manure and plowing it under, and then by means of the harrow levelling it nicely off. Ground that has been used for any early crop will answer for this, provided it is properly prepared.

The seed can be sown about the tenth of September in drills about three inches in depth and about sixteen inches apart.



Sow rather thinly and cover slightly, and if the ground is dry at the time of sowing it will be necessary to firm the soil down well around

the seeds, in order to ensure a quick germination; this can be rapidly done by treading in each row with the feet. After

this the drills should be levelled off so as to have the ground in a condition to be easily hoed. After the crop is up it should be well cultivated at all times, and until the ground becomes frozen in the fall.

As soon as the weather becomes settled in the ensuing spring it is advisable to give the crop a slight dressing of some concentrated fertilizer, and then a thorough hoeing, and in a short time the plants will be ready for use. As this plant is apt to run to seed if the weather becomes warm, it should be used early, and then the ground can be prepared for some other crop.—CHARLES E. PARNELL, *Queens, N. Y.*

THE HOME.

The old Athenians spent their money freely to build temples and erect statues, while their own homes were unattractive in appearance to the passer-by. We are glad our people do not follow their examples wholly. We judge of the people by their homes and not by the public buildings, for the home is, in a great measure, the index of the character of the home dwellers. This applies to the outside of the house as well as the inside. The man or woman who seeks to make the exterior of the house attractive as well as the interior, is as much a public benefactor as he who builds costly temples, though he may not be aware of it, nor have the public good at heart, but only be gratifying his own taste. However, the man who cares the most for his own home cares the most for the public good usually. A well kept house and yard is an educator, however humble it may be, and the man or woman who spends money in decorating his home because it is his home, is not so selfish as he might appear.

Our homes, in a measure, belong to the public, the outside of them, at least. We call them ours, and so they are, so far as using them, and we have the right to sell or buy as we choose, but here our exclusive right ends. We cannot look at them any more than the public, and if there is ugliness there we cannot hide it. If a beautiful fountain in our yard throws its silvery spray high in air, glistening as it falls in the sunshine, we may not enjoy it alone. Every passer-by has the privi-

lege of watching it. We may toil over our lawn and our flower garden, and probably experience many a back-ache thereby, but the grass will look no greener to us, nor the flowers brighter, than to others who share in our pleasure, but not in our weariness. Thus we labor while others partake of the fruits. To be sure, we may pluck our flowers, and bestow them where we will, if meddling fingers do not prevent, and this is one joy no one but the flower-grower knows.

The Apple tree which we have tended so carefully will, in its flowering, shed its fragrance as much for our neighbor as for ourselves. The fresh morning breeze will waft its sweetness to him as he lounges on his porch. So those of us who do not wish to live to ourselves alone may feel that time and money spent in beautifying a home is time and money well spent.

A tasty home and well-kept yard are not only gratifying, but they stimulate others to beautify their homes, and incite a love for the beautiful. A pretty home is no less a picture, a work of art, than the painting on canvas. But a pretty or beautiful home is not constituted by a fine house. The house itself may be very plain, indeed, a log cabin may be made beautiful by its surroundings. I have one in remembrance that was beautiful to me. The path to it was bordered with gay flowers, and over one side of it clambered a Rose bush, which was a mass of pink flowers in June, and a bower

of green the rest of the season, while fruit trees and flowering shrubbery otherwise added to its attractiveness. No elegance of architecture can ever make up for lack of nature. A house built in the latest style, with all modern improvements, and all that money can do for it in the way of architecture may be a very unattractive place. We turn from it with a sense of relief to the vine embowered cottage, unless the mansion itself has

similar attractions. The humble cottage over which Roses and vines clamber, with a roomy lawn and flower border, is a scene for poets and a delight to every eye; but who ever heard poets sing over mansions. In laying out a home remember that trees, vines and flowering plants cost no more than wood decorations, and are far more beautiful, and if both cannot be afforded then forego the latter.—A. C. F., *Muskegon, Mich.*

FOLIAGE PLANTS FOR CONSERVATORIES AND PARLORS.

As a general thing, a flowering plant is preferable to a non-flowering one, but very often the circumstances under which we must grow plants are not favorable to the production of flowers. But few plants flower well unless they can have plenty of sunshine. To attempt to produce flowers in north windows is never advisable if one can procure handsome foliaged plants. There are many such that will flourish there, and make a fine show though they do not bloom, and one of them is worth a score of spindling Geraniums and straggling Heliotropes, which almost invariably drop their buds, and give only disappointment.

One of the best plants for a not very sunny place is the Palm. It is a sturdy subject, growing rather slowly, but growing well under circumstances that would be certain death to many plants. It does not care particularly for sunshine, and only asks to be given a good soil, a deep pot or tub, and have its leaves kept clean and the soil about its roots moist, but never wet. It endures the dry air common to most living-rooms as well as any plant I know. It is a constant pleasure to watch its development. Each leaf is a source of wonder. As it gets age, it becomes very ornamental, and its long, shining leaves are always certain to attract attention and call out as much admiration as rare flowers would. I grow but three kinds, and these three I have selected as the best for ordinary culture. These are, *Seaforthia elegans*, having long, large leaves, of a very graceful curve; *Phoenix reclinata*, having smaller leaves, but equally graceful in its style of growth, and *Cocos Weddelliana*, with finely divided foliage, an exceedingly beautiful variety. If care is taken to give these plants a deep pot to

grow in, and they are not suffered to become coated with dust, which clogs their pores, or breathing surface, and they are not given a sufficient quantity of water to sour the soil, any one who has the "knack" of growing plants can raise them successfully.

The *Ficus elastica*, or India-rubber tree, is another most excellent plant for culture in living-rooms. It has large, thick leaves, whose surface has a rich, glossy appearance. It grows quite rapidly under ordinary circumstances, and the old leaves remain on the plant for years, if kept clean. It is one of the easiest of all plants to keep free from dust, for its foliage can be washed as easily as one would wash a plate. A well-grown specimen is something to be proud of. It requires no more care than the Palm, and should be given the same treatment.

The *Aspidistra* is very satisfactory for use in shady windows. It is not a tall-grower, but sends up a large number of dark green, shining leaves, which are easily cleaned. It will flourish where few plants would live. There is a variety with white striping in the foliage, which is very attractive.

The Myrtle is good to grow in the living-room. Given a rich soil, it will soon become quite a tree, or shrub. It has small, dark green leaves and white flowers, but these are not very freely produced in parlor culture. It seems to be a general favorite with the Germans, who grow it to perfection. I know of specimens a dozen years old, belonging to German families in this vicinity, and the family cow could be parted with quite as readily as they would part with their Myrtle. I have often tried to buy a fine specimen, but in vain. They will willingly give cuttings of it, or offer to start a

plant for you, but "*Nein, nein,*" they can't let the old plant go.

Another very satisfactory plant for a north window is *Pandanus utilis*, a variety of Screw Pine. It has long, recurved foliage, sharply toothed along the edge, so much so that it is not a very pleasant operation to draw one's finger down the leaf. The leaves spread out over the pot and give the plant a very pleasing look. It requires the same treatment as the Palm.

The English Ivy is the best vine for use in shade. It is our best vine for the house under any circumstances, in my opinion. This plant, like all the others I have named, becomes more beautiful with age, as it puts out in all directions its graceful branches, clothed with rich, dark leaves. Some persons complain that they cannot make their Ivies grow. Do not be impatient with them. If they have a good soil to grow in, and are kept clean, they will almost always flourish well when thoroughly established, and though they may not make a rapid growth for a year or two, they will,

after a little, give no cause for complaint in this respect. I have noticed that most persons who complain of failure with the Ivy, are generally those who expect a great deal of a plant in a very short time.

All of the plants I have named above are plants with foliage of a firm texture. Such plants are always better adapted to culture in dry air and dust than those having soft and porous leaves, whose pores are easily clogged, and not so easy to clean without injury to the plant. The scale bug is the only enemy that ever attacks them, so far as my experience goes, and he can be easily removed by using a tooth-brush and soap-suds. Do not neglect the plants for a day after you find a scaly fellow on them, but look them over thoroughly, and keep him from obtaining a foothold. The old adage of an ounce of prevention being worth a pound of cure applies here very forcibly. It is much easier to keep the scale bug from taking possession of your plants than it is to get rid of him after he has established his quarters there.—EBEN E. REXFORD.

BALSAMS AND PANSIES.

These beautiful annuals are worth all the care of the grower. They should be sown in boxes of mellow, light soil, in the house or greenhouse, early in spring. My plan is to cover the soil after planting with sifted sphagnum, or swamp moss. Water well with tepid water, and keep in an even temperature till sprouted, then remove the moss and place in full sunlight, giving air daily. When they have made their second leaves, transplant to similar boxes, placing them an inch apart each way. They will grow rapidly, and in two weeks after must be potted in two-inch pots, one plant to each pot. Avoid disturbing them as much as possible. I find the best plan is to cut the soil in squares and lift with a wide knife. Place some soil in the pot and the plant on it, filling in as necessary. Water and shade for a day. As soon as the roots mat around the ball, transplant to four-inch pots. Proceed in this way till they can be planted in the beds or border where they are to remain.

The hoe, used as in cultivating vegetables, keeps the soil mellow and prevents baking. Manure water should be

given twice a week. The best plan is to dibble holes six or eight inches deep in the center of every space between the plants, fill these several times in succession, waiting for it to soak into the soil before repeating. This is a safe way to use it, for if too strong you avoid killing the plant, as only the strongest roots come in contact with it. Never let it touch the foliage. Keep all shoots or branches well cut in to keep the strength of the plant for bloom. In Pansies remove many of the first buds, and pinch the tips of runners to cause them to break and become compact and stocky. Both Balsams and Pansies require frequent watering and full morning sun. I plant the first one foot apart in the rows and each row a different color, using white every fourth row. One can never be quite sure of the color of Pansies till they bloom, and often get all the dark colors together and all the light ones the same. Plant one foot apart each way, as they are never perfect if crowded. Better have one dozen perfect plants than more, if space cannot be given.

If mulched heavily with leaves about

the middle of December, using care to pack them well up to the collar of the plant, they winter well and are finer the second year than the first. I never cover them, as the water mats the leaves and produces rot. They do quite as well in full sunshine as shade, if given plenty of water. There will be a failure of perfect bloom if neglected. My Pansy beds are the center of attraction in the garden.—IONE.

LEGEND OF THE HYACINTH.

Ages and ages ago,
In the land we now call Greece,
Whose fabled gods and heroes
To charm us will never cease,
There lived a youth, Apollo,
Whose name has been handed down,
For his fame of manly beauty,
And echoed the whole world round.
Nowhere throughout all Hellas,
For grace and beauty renowned,
In face, or form, or carriage,
Was his equal to be found.
Of those who had his favor
Was one, a beautiful boy;
Long had he loved and taught him,
As part of his life, his joy;
So charmed with Hyacinthus
That many hours he'd spend,
After the usual lessons,
In frolic with his young friend.

Now, Zephyrus, the West Wind,
Jealous of Apollo's joy,
Angry to see him preferred,
For he also loved the boy,
Was ever planning revenge.
As he laid in wait, one day,
He saw his hated rival
Come out with the boy to play.
Apollo was throwing quoits,
With him a favorite game,

And so strong and sure his arm
All Hellas knew his fame.
Zephyrus thought a moment,
Then chuckled with evil joy,
"His hand shall send the weapon
That takes the life of the boy;
Surely, I waft the missile
To a mark he never guessed,
Then do you think it'll haunt me
How with joy his life is blest?"
Well was it for Zephyrus
That nature his form concealed,
Ill would he fare with Apollo
Should his dark thoughts be revealed.
Then gently the west wind stole,
"Now, I'll watch my chance," thought he.
The boy, unmindful of aught,
Sprang forward in his glee.
Straight and sure as an arrow,
On its deadly errand it spun,
Apollo started aghast
At the deed his hand had done.
And then he clasped his darling,
And bathed the wound on his head,
And vainly sought to restore him,
But the boy was stricken dead.
Where the blood of Hyacinthus
Lay on the ground in a stain,
Sprang up a beautiful flower,
Which to this day bears his name.

—M. H.

FOREST TREE PLANTING.

The question of our future timber supply in this country is one of greater importance than is generally recognized, and it seems to me that it is the duty of our agricultural and horticultural papers to educate the people up to the necessity of tree planting. While alarmists have, perhaps, drawn too vivid a picture of the evils likely to occur from a much further reduction of the area of timber lands by the increased liability to drought, there is no questioning the fact that timber produces a favorable climatic condition by breaking and tempering the winds and increasing humidity. I think, however, the economic side of the question is likely to have more influence with the ordinary reader, and I hope to be able to prove that tree planting is profitable. Many of our leading papers are calling attention to the subject, and not a few of our legislative bodies are discussing it,

but most that is written, and most bills introduced, look rather to the preservation of our forests in the lumber regions than to the encouraging of timber planting in our older settled States.

The question of forest preservation as compared with that of forest renewal, is of small moment. It seems strange that in a single generation there should be so complete a revolution in the condition of the timber supply, and it shows a short sightedness and prodigality among our farmers that is unparalleled. My home, Southern Ohio, is in a locality that had a superabundance of the finest timber in the world, and in a residence of thirty-five years I have seen it disappear, until now a large per centage of the farms cannot furnish fuel, while it is rare to find one supplied with good rail or building timber. In addition to this, the forests which remain are rapidly going to

decay, for they have been thinned out so as to let in the sun, and been trampled by cattle or rooted by hogs during the open weather of winter and spring, until many of the trees are dying. Like the American Indian, the original forest is bound to pass away.

What is to take the place of these forests? As yet, not one farmer in five hundred has even thought of such a thing as systematic tree planting, and there are few who believe that timber could be grown in an ordinary lifetime so as to give a profit to the planter. If we can show farmers that there is money in timber growing, we shall find it easier to interest them in the subject. I have been favorably situated for observing the growth of artificial timber plantations, and have planted several myself, and shall not theorize, but give exact facts with which I am personally acquainted.

In 1850, at which time timber was so abundant that the farmers were deadening and burning it, a neighbor of mine began planting Locust timber, and during the ensuing five or seven years he planted ten acres, most of it on a southern slope, too steep and broken to cultivate, and so exposed to the sun as to dry out easily when in grass. This entire plantation was cut and marketed in 1866-69, but as

the former owner is dead I can only guess at the amount received, but I know it was some hundreds of dollars per acre. The second growth was much more rapid than the first, and in 1879 the present owner began cutting out the largest trees where they were crowded, and marketing them. In 1883, he allowed me to examine his books, and I found that his sales from the thinnings averaged \$24.75 per acre, or \$990.00 from the ten acres for the four years. This land has produced more grass, although not perhaps of as good quality, than it would have done without the trees. I have planted four plots of Locust timber myself, averaging over one thousand trees each, and the growth has been satisfactory with all of them, and I have never known a grove of seedlings planted which did not give satisfaction, but where sprouts have been dug up and set out they have almost universally failed. I planted, in 1863, a small plot of Soft Maples, some of which are now nearly two feet in diameter, and we, this year, tapped and made syrup from trees fourteen years old from seed.

In another article I will tell how to grow the trees in nursery, and how, when and where to plant.—WALDO F. BROWN.

WHAT TO HAVE IN THE GARDEN.

There is too much sameness in the common order of gardens. Geraniums, Dahlias, Petunias, Roses, are the variety in every garden in the town where my lot is cast, and every other place east of the Mississippi repeats the list. Each garden at most makes out to have one flower different from the one next to it. One has Phlox, and another Coreopsis, and I am quite delighted to see that one enterprising neighbor has the beautiful crimson Balm to rest one's eyes on. But I begin to dislike red Geraniums, Balsams and Cockscombs, much as Mr. WILLIAM MORRIS, the artist, does, they are so stale. When nothing else is to be had, of course, one is thankful for Geraniums and Balsams. But most persons lay out a few shillings each year on their gardens, and if they took thought might have a wider range of delight in them through the garden year.

Shrubs blossom soon after the bulbs

push out of the snow, but all the shrubs people are familiar with seem to be Spiræas and Weigelas. Every house wants three or four giant Lilacs to fill April airs with sweetness, and white Lilacs, among the most elegant of flowers, to add their beauty to the purple ones. Transplant large bushes and give them culture, if you want the home look about new grounds. I took up old Lilacs, seven feet high, from a deserted homestead, last year, shaded them with matting for three weeks, watered and mulched them, and in two years they will look as native to the place as the giant Lilacs at the LONGFELLOW place in Cambridge.

Have you plenty of that most delightful bush, the Flowering Currant, to spice the air with its odor of Pinks in early spring? Of course, you haven't; this hardy delight is almost unknown in many parts of the country, where no shrub

gives so good an account of itself as this, with its golden, fragrant blossoms, loading the winds with odor, and bearing fruit that can be well used, only it is too pretty to pick. It is one of the sweetest memories of my childhood home, racing round the house to be met at each of the four corners with a different gust of perfume, Apple blossom at one, the Tea odor of the wild Crab tree at another, the essence of forest buds and mint, and then the keen rapture, the fresh Carnation scent of the Missouri Currant. You should see it spreading its yellow network along the streams of Colorado, and filling the mountain air with incense, to know that it is one of the national flowers we should take to our hearts and homes, as the English do their Hawthorn and Broom. While you are about it, get a double-flowering, crimson Currant, if you want to envy yourself for a handsome plant. The Garden Society should by all means distribute these shrubs among its members the first season.

Another of our native shrubs that is excelled by none I know for beauty and hardiness, is the native wild Crab of the Northwest. Plenty of these were about my father's house, loaded with deep blushing flowers in spring, red Apple blossoms instead of white, deep, glossy foliage in midsummer and painted fruit in autumn, glorious trees that they were. Set out young and pinched in, to dwarf them, no finer ornamental shrub can be found for northern gardens and grounds. Why will not enterprising nurserymen bring this forward for eastern buyers?

By all means try the Calycanthus, or Nutmeg, or Spice Bush, with its most fragrant flowers, bark and leaves. Plant it in a large pot sunk in the ground, taking it up two or three winters and keeping in cold-pit or cellar, out of frost till it has a strong growth, when it will stand any winter out of doors. I write this confidently, knowing large plants that stand Massachusetts winters in a very exposed place, with the slight protection of litter thrown on the roots.

I have no doubt those beautiful shrubs, the Portugal Laurel and California Arbutus can be brought to stand our winters by cherishing till they make growth strong enough. The native New England Laurel, with its glossy, rich foliage, has been cultivated in Dedham till it

makes a noble shrub, the character of the leaf changing greatly with culture. It is one of the finest things to be seen, rising vivid as a tropic tree out of winter snows.

Have you a double flowering Cherry? If not you don't know what is good for you. The old-fashioned Flowering Almond is scarce lovelier, and, by the way, half a dozen bushes of this last should be set in corners and out of the way places to brighten spring time with their blush. No new favorite is finer than this ancient love well cared for and pruned every season, to grow wands of blossoms four feet long, the bush a dome of fringed pink.

Have one bush each of Japan Quince, red, white and pink, planted on the open sward, and let them grow. One bush seen, last year, at an old farm house was a wonder in its way, ten feet across at base, a broad cone of vivid red flowers glowing in the sun, like fire. I have had a new respect for Japan Quince ever since. A hedge of the three varieties is a highly ornamental thing for city grounds.

Besides your Balsams and double Petunias, suppose you try some other flowers, say Ten-Weeks Stock, double and large as Scotch Roses, perfuming the whole garden, and Sweet Williams, which are coming into favor as florist's flowers. I know nothing so good as a stand-by for the garden as the Sweet William, for it is a rich, hardy, fragrant flower, and one can manage to keep it in bloom nearly all summer. One of the prettiest effects in the Boston Public Garden, which has many lessons in tasteful gardening for amateurs, was a large oval of small, white bedding Roses alternating with crimson Sweet William. The contrast of the snowy-cheeked Roses with the deep painted velvet of the trim Sweet William was as rich as anything could be in flowers, yet produced with such simple means. A garden is well off if it has Monthly Roses, Mignonette and Sweet William in plenty, and these plants well nigh take care of themselves. But I would have a border of English Violets on the shady side next the fence, for the children to remember home by in after years. Verbenas are nearly as all-sufficient as Sweet William, being gay, of many colors, vigorous and sweet as honey. Peg the shoots down and let them crawl on the ground in their native fashion;

don't have painful upright, top-heavy stalks. One *Verbena* will easily cover a circle of a yard across in a summer, and if you want a bright effect with little cost, peg down a scarlet *Verbena* in shape of a star, with palest blue *Ageratum* between the rays, and border with white *Alyssum*. The clear, soft harmony of hue is very refined and pleasing.

Snapdragon is a showy, hardy flower which should be one of the stand-bys of the garden. The clumps of scarlet, crimson, yellow and white have a mellow richness. They bloom till hard frost out of doors, and go on blooming in doors all winter, if potted. A plant harder to kill by ill usage I never saw. Asters, *Chrysanthemums* and Marigolds are as easy to raise as *Portulacas* and *Balsams*, and give far more pleasure, for the former can be cut for bouquets, while the latter flowers cannot. A border of Daisies in a shady place is a delight all summer and fall. For the sunny side plant a border of garden Pinks, the old white Scotch variety for stock, with maroon and rose color mingled, like some rich embroidery. Give them ashes mixed with the soil to make it mellow, and weak salt water through the season, and you will be surprised at the beauty of their foliage, the blue-green, grassy fringe setting off the flowers in a charming way.

Gaillardia is a brave bedding plant, covering its sunny plot with small Sunflowers almost flat on the soil. Canterbury Bells, the dark *Scabiosa*, *Salvias* and *Phlox* give flower beds their latest glory from August till November, and no one who knows them in perfection will ever care to be without them. In perfection, I say, for it is not worth while to pay for seed and let the plants run out as too often happens, when thorough stirring of the soil, dressing with sand or

sifted ashes, and compost from the hen house or night soil will give such splendid returns. People sometimes come and ask what this and that flower is in the garden, and are surprised to find it some familiar thing improved out of knowledge by cultivation. The poor, weak, spindling flowers that get into horticultural shows often betray how much there is to learn of the common care of ordinary plants.

I want to revise an opinion given against *Clematis Jackmani*, in these pages, some time ago. The intense purple is a very hard, unlovely color by itself, but plant *C. Jackmani* and one of the white or silvery lavender varieties together to train over a trellis, if you want an effect of uncommon beauty. Plants set each other off with great kindness, if well studied. The purple and the white *Wistaria* should be planted together, the late clusters blooming a second time in August, making this one of the desirable climbers for home surroundings.

Don't say you can't afford plants. You will spend on fire crackers, the fourth of July, and soda water during the season, as well as for flags and magic lanterns, festivals and such foolishness for the children, more every year than would give them endless delight and attachment to their home. If you must go without, cut off things that are the least use, whose pleasure disappears with the hour, and spend on plants, seeds, an awning, a garden arbor or rustic seat, and flower brackets to make the home lovely the year long. Club with your intimate friends and send for things, and divide. When I see the pleasures families might have and don't, it seems as if there ought to be neighborhood committees to manage people's affairs for them.—SUSAN POWER.

HEATING GREENHOUSE WITH OIL STOVE.

In a previous issue of your MAGAZINE you asked for information relative to heating conservatories and small greenhouses with coal-oil or kerosene. Having had some experience of this kind, I will give it to you for the benefit of your readers who think of heating by any such method. Last autumn I built me a small span-roof greenhouse, twelve feet long

by eleven feet wide, and walls four feet high, and banked three feet outside. The roof was made of common three feet by six feet hot-bed sashes, with ventilation at top. This I proposed to heat with an oil stove, not doubting in the least that it would be a very easy thing to do.

My reason for using kerosene was that it would be cheaper than coal—coal here

being worth from six to eight dollars a ton, according to quality, and kerosene could be had for ten cents a gallon—and that I would get rid of the dust from ashes. So I bought me a three-burner Florence oil stove with heating drum; the agent assured me that it ought to be large enough for the purpose. It holds three quarts of oil, and will burn eight hours, but I could heat the house twenty-four hours with eight quarts, costing, as you see, twenty cents a day. Now, as to making offensive odors, during the months of October and November, there were many days and nights when with all the burners lit it would be too warm, therefore, I tried it with one and also with two burners, but found that it would smell unless all of the burners were in use, and with things in this condition my plants did not grow very well.

One day, the last of November, when I came home at noon, I found the house full of smoke, and the stove was making lamp-black all over everything, about ruining them; but with good treatment I managed to get them started again, and they were growing finely, when we had some extremely cold nights in January, with high wind, the thermometer going 16° to 18° below zero. Such weather as this the stove was not equal to, so the first morning I found nearly everything frozen. I did everything I could to save the plants, but it was of no use, there was too much frost. So I took what few plants there were left into the house for the winter.

I started the stove again in March to grow my seedlings, but it bothered me by giving off an offensive odor, the same as in the fall, and I could see that the plants were affected by it, although not so much, as I was not obliged to

keep it going after nine o'clock in the morning, and did not start it again until five or six o'clock in the afternoon, which gave the air an opportunity to purify.

The stove was trimmed twice every day, and kept perfectly clean, so that could not have been the cause of its smoking. This was using the stove with direct heat, making no attempt at hot water heating. If I had used two oil stoves during the coldest weather it would have been very expensive, costing more than coal, and, though I have not tried it, I think it would cost no more to heat with coal than it does with kerosene, and on extremely cold, windy nights a coal fire can be forced while oil cannot. With my experience I would advise every one to let oil stoves alone, unless some other method than is known at present can be employed. If any one has had better success, I would like very much to hear of it. Cannot some of the boiler makers give us a small boiler, similar to those in use in England for small conservatories and greenhouses, and at a low cost?—E. P. W., *Rockland, Mass.*

THE CHAMPION GRAPE.

The Champion Grape appeared in this market August 18th, coming from Southern Illinois. It retailed at seventy-five cents for a ten-pound basket. It probably does duty for show on hotel tables, as no one would buy them to eat. It is a hopeful fact for Grape growers that the public are learning to discriminate in regard to the quality of fruit, and will pay in price accordingly. The reputation the Champion has made for itself is well indicated by the fact that dealers endeavor to sell it as the Concord.



FOREIGN NOTES.

STOCK AFFECTING THE GRAFT.

In an interesting and instructive article in the *Revue Horticole*, on the subject of the "Direct influence of the stock upon the graft," by F. SAHUT, which, however, it is not our purpose to notice fully, we find the following reference to the Tecoma—*Bignonia radicans* and other species:

"The climbing Tecomas, when grafted upon the *Catalpa* lose the climbing habit and form bushes which, by compensation, flower very much more freely than upon their own roots." Of the *Chionanthus*, or White Fringe tree, he says: *Chionanthus Virginica* grafted on the Ash, flourishes abundantly, but never fruits, while it fruits on its own roots."

In regard to the influence of the stock upon the graft in the case of the vine, as in grafting the European on American varieties, as is now so commonly practiced in the French vineyards, the writer expresses the opinion that although it cannot be said absolutely that in no case the wine would be inferior from the finer European varieties grafted on inferior American sorts, yet to his knowledge no example has ever been noticed of the kind. "The size of the bunches, the size and color of the berries, the flavor of the pulp, and the color of the juice have never been, to my knowledge, affected unfavorably. The wines obtained have not participated in the foxy taste, considered as a grave defect, which is presented by the wines of some varieties of American vines."

In examining the condition in which the grafts are produced, he remarks that it is often necessary to consider the stock in regard to the graft as playing the same role, or a role analogous to that, which the soil itself exercises. The stock transmutates the material of nutrition to the graft, but it does not furnish it directly, it borrows it from the soil. It serves only as a vehicle, or, rather, as a passage way, without modifying the materials in any sensible manner.

The writer notices the experience that has been had in some French vineyards

of late years in regard to the infertility of the stock communicating itself to the graft, and gives as an often-repeated example, that of grafting the Aramon, one of the most fertile of European varieties, on the Cunningham as a stock, an American variety of very variable fertility, abundantly yielding in some vineyards, it produces but moderately, and even sometimes not at all in others. He regards this variability of production as due to the soil; that the Cunningham is capricious of its soil, and that where the soil suits it its grafts bear abundantly, and on the contrary, in those soils which are unfavorable to it its infertility is communicated to the graft.

Grafting of the vine has been so little practiced in this country that we doubt if much, if any, similar experience can be cited in corroboration by American vine growers. But we may regard the case as instructive. It is certain that some well known varieties of Grapes show great variability in different soils; the most marked cases that have fallen under our own observation are those of the Brighton and the Niagara. The former, though never producing abundantly, yet in some localities bears regularly and satisfactorily, in others, particularly the shores of Canandaigua Lake, it bears little or nothing year after year, when subjected to various methods of pruning. In the same locality the Niagara, which has been reported to be a great bearer, produces very lightly, although its growth is sufficiently vigorous. In these cases, if we may be guided by the opinion of M. SAHUT, formed upon experience gained in the French vineyards, it would be unwise to use these infertile, or lightly fertile, vines as stocks on which to graft other varieties, as is sometimes proposed. There is but one course to be taken with them; if not worth keeping for their own fruit root them out and give their places to better varieties. A series of experiments—work for an experimental station—to test the comparative worth of different varieties of Grape vines as grafting stocks, might prove of value.

ROSE PRUNING.

The *Gardeners' Chronicle*, in its issue of July 11th, says: "The following experiments are suggestive. Three vigorous bushes of Charles Lefebvre, Paul Neron, and Noble's Queen of the Bedders, respectively, were thus treated. All the branches on each were divided into three sets. One set of each on the same plant was hard-pruned late in March, one set had the buds rubbed off as they appeared for several weeks in succession, and one set of branches left alone to grow as it would. The result is at this date that the branches which were let alone have been bearing in profusion flowers of fair average quality for the last fortnight; those that were hard-pruned are only now expanding a comparatively few flowers no better than those which were let severely alone; while those in which the buds were rubbed off systematically till about the end of May are weak and sickly, with few, or in some cases no flower buds, and what there are very backward and small. It should be stated that the growth in all cases in the garden where these experiments were conducted has been unusually vigorous this spring, with an almost complete absence of green-fly, maggot or mildew. In many seasons green-fly or maggot very seriously check and deform the first flowers, so that as far as they go these experiments would seem to indicate that in the ordinary season moderate pruning by checking and retarding the first growth enables the Roses to escape the attacks of their enemies, but if these latter do not put in an appearance, unpruned Roses do best. Of course, we have not the exhibition table in view."

NEW HYBRID PERPETUAL ROSES.

A writer, W. J., in the *Gardener's Magazine*, says: "We have flowered under glass, this season, a considerable number of the Roses of recent introduction, and a few of them have been found so meritorious that they will in due course take a leading position amongst the varieties suitable for pot culture. The following are those which have been found the best for growing in pots for flowering in the spring and the early part of summer: Joseph Metral, a beautiful variety of robust growth, the flowers large, and similar in shape to the Mar-

quise de Castellane, but much deeper in color than those of that justly famous variety. Lord Frederick Cavendish has proved remarkably good, and will probably be an excellent garden Rose, as well as being most useful for flowering under glass. It has a free habit, good foliage, and blooms very freely, the flowers being of globular form, and a deep, glowing crimson color. Eclair has also been very satisfactory, for it has bloomed very freely, and the flowers, which are reflexed and of great depth, are brilliant red. Alphonse Soupert is, perhaps, the most valuable Rose of its season. The habit is remarkably good, the foliage is stout and ample, and the flowers are large, finely formed and of a rich rose color. This is a grand Rose for forcing, as it starts quickly into growth and the flowers open well under the influence of artificial heat. It is the best Rose for pot culture that has been introduced for several years past."

DEGRADATION OF WATER.

Under this head, *Gardening Illustrated* thus refers to the French style of furnishing small lawns with water. "If there be only a mere napkin of a lawn there is sure to be a cemented tub in it; the Yuccas and the grass, the Thujas and the Cannas, all look happy, as one expects them to be, but the whole is generally marred by the most ridiculous of fountain basins. The writer has seen, as near as he can calculate, between 7000 and 8000 of such saucers disfiguring as many pretty gardens in the neighborhood of Paris. It is another evidence of the futility of forming artificial water in any form in the small garden; those who find gratification in surveying a tub full of dirty water should enjoy it in a more convenient place."

FERN FRONDS.

It is rather strange, considering how extensively the fronds of *Adiantum cuneatum* are employed for decorative purposes in association with cut flowers, that so few have recognized the fact that the light green fronds retain their freshness for a much greater length of time than those of a dark green hue. Fronds of a pale green color are obtained by placing the plants in a lighter position than is usually afforded this Fern, and they are,

consequently, much firmer in texture than those of examples grown in a dense shade. The appearance of the plants is not so pleasing, but that is a matter of secondary importance when they are grown for the production of fronds for use in a cut state. The decorative florists have so decided a preference for the light green fronds that, in the market, they are worth about thirty per cent. more than those of a dark green color.—*Gardener's Magazine*.

IMPATIENS SULTANI.

This African Balsam has become so popular in England that, according to *The Garden*, now it is to be found in the most out-of-the-way gardens throughout the country, a good proof of the plant's value. "The chief point in its culture is to treat it liberally. It should not be allowed to become pot-bound, otherwise it loses its lower leaves and has a leggy appearance. It delights in an abundance of heat and moisture, but it may, nevertheless, be grown with perfect success in a greenhouse, provided the young plants are either struck or raised in close frames. Messrs. JACKSON, of Kingston, exhibited plants of this Balsam, last year, quite four feet through, and profusely laden with brilliant carmine flowers,"

Impatiens Episcopi is similar in growth to *I. Sultani*, and the flowers are also similar, except that the color being a carmine is suffused with lilac-purple. Hybrid varieties of these Balsams will undoubtedly soon appear.

LATE SOWN PEAS.

The recent dry weather has been testing the Peas. Heat will bring out their character as quickly as anything, and it also tests the best modes of culture, and soon shows the result. On light, shallow soil the straw soon becomes yellow, the pods wrinkled, and the Peas hard and dry. We recently saw some rows which were in this condition, and the owner could not understand the reason. Plenty of manure had been forked into the surface before the seed was sown, and it was thought they would luxuriate in this, but they did not when the dry weather came. It was then they could not be understood, but in asking about the sowing the matter soon became clear. The drills when

opened for the reception of the seed were not deeper than three inches; consequently all the most important roots were very near the surface, and although the manure was there it was dried up when the warm weather came, and the result was almost a failure of what might have been a fine crop. In another garden I could not help saying, "What very fine Peas!" "Yes," said their owner, "that is the advantage of deep digging and deep sowing. The ground was trenched twenty inches deep, and the seed was put down nine inches from the surface." This made the mistake in the other place quite intelligible, and I resolved to practice deep digging and deep sowing for summer Peas. It was a treat to see the deep sown ones, and the roots being well down from the influence of any drought were growing and fruiting in the most luxuriant manner possible.—A KITCHEN GARDENER in *Journal of Horticulture*.

STALE MUSHROOMS.

At a late meeting of the French Academy of Science a discussion was held in regard to poisons in edible Mushrooms. MM. ROUX and HOUE presented a report upon some poisonous products which they had obtained from Mushrooms purchased in the market. Half the Mushrooms were eaten fresh without any bad results, the other half were allowed to putrify to a slight extent, and were then submitted to treatment with a view to extract the alkaloids. Four were separated, and these, when injected into the animal tissues of Guinea-pigs brought about death, with symptoms of intoxication. The *Gardeners' Chronicle*, from which publication we obtain these facts, remarks: "Those rather numerous persons who prefer Mushrooms in an incipient stage of decomposition on account of their stronger flavor in that state, should take warning."

It is probable that poisonous products could be obtained from almost any kind of decaying vegetation—that Mushrooms are not exceptional in this respect—and no fact is better understood than that of the harmfulness of decayed or decaying fruit and vegetables. It must be a depraved taste that can be gratified by such pabulum.

ARUM LILIES.

The demand for these has been unprecedented in Covent Garden this last spring. A salesman there told me that he could have sold thousands of them on the day preceding Good Friday. At that time they realized 1s. each, and during the spring they sold for 8d. and 10d. each. The fact seems to be that in spite of the immense quantity of white flowers grown there are times when the supply can scarcely be met, and this is especially the case with Arums, which are indispensable for church decoration. I used to think that the only way to grow them well was by planting them out in summer, and that blooms of high quality could only be had from single crowns. I find this to be a mistake, for some of the largest blooms I ever saw were on plants that had been several years in the same pots. They were heavily top-dressed with cow manure, and were, of course, liberally watered. But the largest specimens I ever saw, and which had really a gigantic appearance, were in a market garden at Tottenham. They were in very large pots, in which they seem to have been some years, many of them being five feet in height, with leaves of proportionate size and substance. They looked so different from all other Callas I had ever seen that I had doubts for a moment as to their identity. They were not in bloom when I saw them, but it was easy to conjecture what the quality of the flowers borne by such plants must be like. Until I saw these giants I never realized what a truly noble plant the Calla is; in comparison the puny specimens one generally sees give no idea of it. I suppose this is the size they attain under the most favorable circumstances in their native land. Those who have large conservatories to decorate should endeavor to develop the Calla in this way. A plant four feet or more in height and bearing a score of its large white trumpets must be a grand sight.—J. C. B., in *The Garden*.

PACKING CUT ROSES.

A writer in *The Garden* advises the use of Spinach leaves for packing Roses. "The Roses should be laid closely, evenly, and flatly in these: another layer of leaves should be placed on the top, and the lid should fit down tightly on them. Thus packed it is surprising how beautifully fresh the blooms will turn out." "Cabbage Lettuce leaves, if not too coarse, will answer nearly as well, and slightly damped common Fern fronds are also available for the purpose, and can be turned to good account when their destination is reached." Cotton wool as a packing material for flowers is stated to be one of the worst that can be employed, and this agrees with our own experience. "If the latter must be used, a layer of damped silver or tissue paper should be placed between it and the flowers, and this will protect them from the absorbing power of the wool. Some judgment is required in cutting the blooms; none that are more than half blown are suitable for packing. Then, again, if it is impossible to cut and pack these half opened blooms in the morning while yet the dew is on them, the least that can be done is to cut and place them in water in a cool, dark room for a few hours, in order to fortify them for their trying ordeal. To cut and pack them straight from the bright sunshine is altogether wrong, yet many unthinkingly adopt this practice."

LILIUM KRAMERI.

A correspondent of the *Gardeners' Chronicle* notices blooming specimens of *Lilium Kramerii* with five and eight flowers on the stem, remarking that when this variety was first introduced it produced only one flower on a stem. He also observes that *L. Californicum*, which, for many years after its introduction, was a single-flowered Lily, now produces "as many flowers as the ordinary *L. pardalinum*."



PLEASANT GOSSIP.

CALADIUM—PASSION VINE.

How shall I keep my Caladiums this winter? I have tried them in the cellar, but they all rotted; then I tried drying them, as I do Gladiolus, but with the same result.

I have a beautiful Passion Vine; will the root live in the ground out doors this winter, or what shall I do with it, it is a pity to let it die.—MRS. R. A. H., *East Liverpool, O.*

The season is too short at the north to mature the tubers of Caladium esculentum, and because they are not matured great difficulty is experienced in keeping them over winter. Possibly, by taking them up in the fall with considerable soil, and keeping them in a warm cellar, or one that receives more or less heat from a furnace, and drying them off very gradually they might be kept over, but usually it will be found a difficult operation, and it is cheaper to buy southern raised bulbs in the spring than to try to keep those that have been employed in the garden during summer

Northeastern Ohio is a cold place for the Passion Vine—probably *P. cœrulea*—in winter. It can be kept in the ground if freezing can be prevented. There is no material better than leaves for protecting plants from severe weather. An abundant covering of them together with a frame over all, covered with sash might save the plant. If it is thought best not to take the risk of this method the plant can be taken up when cool weather comes, and be kept through the winter in soil in a frost proof cellar.

WISTARIA.

Will you kindly inform me, through your valuable MAGAZINE, as to the reason of my Wistaria not blooming. Three years ago I bought a high-priced variety of Wistaria, represented to bear large clusters of purple flowers. For three seasons it has done finely as far as growth and foliage were concerned, but as yet we have not seen a single flower or bud. I have tried to prune it back considerably, and another season left all the wood to grow, but the result has so far been the same. Last summer, nearly all the leaves fell off, from attacks of red spider. Can you give a practical remedy where a large plant like this cannot be gone all over with syringing.—C. B. S., *Chicago, Ill.*

The Wistaria wants age before blooming. It should be encouraged to grow

and make a large plant. During the early period of its development its force is spent in growth, but when this is accomplished and numerous branches have formed, the annual growth of each shoot is less, and then there is a tendency to bloom. A large plant cannot very well be successfully treated for red spider without considerable trouble. A hand force pump that would throw a spray over all the foliage would be a valuable aid. Spraying the foliage every evening would be of great benefit.

MAGNOLIA BLOOMING TWICE.

Allow me to inquire of you whether it is a common thing, or have you known of the Magnolia blossoming twice the same season. I have a large, beautiful tree, of the *Speciosa* variety, if I remember right, at all events, it is one of the choicest kinds, and in the spring it was clothed with nearly, if not quite, three hundred flowers, very perfect, and now the whole tree is putting forth again. The buds are in all stages of advancement, and quite a number will be in full bloom within a day or two. The tree has made an unusually fine growth this season, the new stems from nine to twelve inches, and the buds, as I suppose, for the next season, are on two, three, and perhaps four leaves below the bud now preparing to blossom. It may be this is no unusual thing, but it is new and interesting to me.—J. W., *Attica, N. Y.*

For a Magnolia tree to bloom twice in a season is unusual, but a second bloom not rarely occurs with our fruit trees when the autumn weather is warm and moist. This Magnolia probably will not bloom next spring, or, if it does, but sparingly. The buds at the base of the three or four leaves at the ends of the new shoots, which our inquirer thinks may be the blooming buds of next spring are only well developed leaf buds.

INSECT ON IVY.

Will you kindly inform me, through the MAGAZINE, what the small insects on the Ivy leaf are called, and how to exterminate them? They appeared first on a small Lemon tree, and the Ivy was free from them, until lately we find them in quantities on the Ivy also. By constantly picking them from every leaf they seem to be conquered on the Lemon.—A SUBSCRIBER, *Hoosac Falls, N. Y.*

The insect in question is a scale insect, and can be best subdued by means of the

kerosene emulsion which has frequently been described in our pages; on page 153 of the present volume will be found two methods of preparing it. A few hours after the foliage has been syringed with the kerosene a syringing with clear water should be given. If necessary, use a brush to clear away any insects that may remain attached. Frequent spraying and washing of the leaves will ensure the plants from this pest.

CLIMBING PLANT—PINE APPLE.

A few years ago, while residing in the Argentine Republic, in South America, a land of many beautiful flowers, we had a vine of rare beauty and excellence climbing over our house, but at the time we left that country there were no seed mature enough to grow, and since our return I have inquired a good deal and examined a number of florists' catalogues, but get no tidings of such a plant here. As we are very anxious to obtain some seed of it again, I take the liberty of asking the numerous readers of your MAGAZINE if any of them know any thing about it. With this I send a rough drawing, about natural size, and a description. This magnificent climber



CLIMBER, WITH FLOWER OF PEA-BLOSSOM SHAPE.

belongs to the Pea family, forms a large perennial root, and where there is no frost the vine also is perennial. After the first year it grows very rapidly, covering a large veranda in one summer with its dense foliage. The leaves are of the shape, and perhaps will average larger than represented in the drawings, or about two inches wide and four in length, and are deep glossy green. The blossom is fairly illustrated in size and shape; the color is white shaded with purple, it exhales a delightful perfume, and does not fade quickly when picked, rendering it valuable for cut flowers and to adorn the person. The seed is a small bean borne in long, slender pods. The Spanish name of the flower is "Caracol," Periwinkle, from the shape of the blossom. I should be much pleased to learn where some seed of this plant could be obtained.

How are Pine Apples propagated, from seed, or by sets, and when could they be obtained?—H. C., *Fulton Wells, Cal.*

From the drawing received with the above inquiries, the accompanying engraving has been prepared, showing leaves and flower of reduced size. We hope any of our readers who may recognize the plant from the description and figure will have the kindness to give its name, or to furnish information by which it may be identified.

The Pine Apple is propagated in various ways, by seeds, crowns, gills, suckers and cuttings of the stem. To start with, the practical method is to take the crown. Twist it from the top of the fruit, and pare the base smooth and pot it in light soil and place in bottom heat. The present month is a suitable time to start the plants.

EXPERIENCE WITH LILIES.

Have any of your readers had experience growing Lilies, if so, I wish they would give names of such varieties as are best adapted to this climate. A year ago last fall I purchased fourteen varieties, Longiflorum, Candidum, Auratum, Humboldtii, Parryii, Leichtlini, Batemanii, Parvum, Excelsum, Tenuifolium, Superbum, Melpomene, Floribunda, and Washingtonianum. These were received in the fall, in good order, but owing to the ground not being prepared, were planted in seven and eight-inch pots and placed in an airy cellar. All commenced growing before planting time. In the spring, as soon as the ground would permit, I turned them out. Some grew finely, throwing up flower stalks and forming, in some instances, flower buds. At this stage the lower leaves commenced turning yellow, and this extended to the top, ending with the flower buds. Three Auratums, which I had planted in a thirteen-inch pot at the same time, grew and bloomed. Out of the entire lot, three of a kind, not one out of a dozen were living in the fall, and of those that did live only Longiflorum and Floribunda bloomed this spring. Not being discouraged I purchased, last fall, Brownii, Giganteum and Auratum. The Brownii came up this spring and bloomed nicely, Giganteum sent up a feeble shoot and perished, examination of bulb showed it decayed, the Auratums, three of them, threw up shoots from three to five feet, one had twelve well developed buds; when well formed the leaves commenced

turning yellow on lower portion of stalk and extended to top bud, examined bulb and found all decayed. The ground was thoroughly trenched, no manure, except a little well decayed mixed with subsoil in trenching, no water stood on the ground. I am fond of Lilies, but at this rate they are costly luxuries, and I would like to hear from some one who can save me further loss and disgust.

This is a fine fruit country, and considerable money is made growing fruit and vegetables for northern markets. The business has grown to such an extent that the I. M. R. R. Co. have placed a fruit train for accommodation of fruit growers along their line.—C. E. K., *Little Rock, Ark.*

THE CARNATION BED.

In an out-of-the-way corner of the world I found it, in the yard that was not enclosed, of a wretchedly poor woman. Such beauties those Carnations were. Every shade of yellow, glowing scarlets, ruby, crimson, cardinal, purple, rose color, pink, white, cream, was there, one beautiful mass of thrifty, double, fragrant Carnations. Such flowers were a rare sight in the far west, and I stopped the driver to look my full upon the dear home posies. I didn't notice that the house was a little, poor, black one, but I did wonder what manner of woman, it never could be a man, cared for these Carnations. And then the door opened and a small, bent old lady, hobbled down to our buggy.

"You lofes de Pinks, ma'am?" she asked.

"I never saw such beauties before," was my honest answer, she read truth in my eyes.

"I lofes you for sayin' so, gute lady. De Pinks are all old GRETCHEN hafe to make her happy now; she bees all alone, and works out all de sorrow in her heart in de bed of lofely Pinks. In de winter time I gets hoongry to see de lofely blooms. I puts straw and carpet heavy to keep de roots warm troo de deep snow. In de spring dey be green and strong, and soon dey make me glad by blooming, all time until de frost comes again. Dey mind me ob de faderland, when old GRETCHEN was young and gathered the sweet Carnation and Clove Pink to fold in a clean, white

handkerchief, when she went to church with WILHELM. Now he be dead, and his grave hafe Carnation blooms on it. Our gute faderland friends say dey keep Carnations bloomin' dere. O, kind lady, in dis strange far west, nobody will put Carnations on GRETCHEN's grave, but no mind. Dere, let GRETCHEN pick a nosegay."

Directly she brought me, arranged in a piece of wet moss, Carnations of every shade beautifully arranged. I was loth to leave the poor, lonely old lady, who looked after me just as long as we were in sight. And I thought, beautiful flowers, your mission is a heavenly one, to cheer the lonely, sad, afflicted, as well as gladden the hearts of the happy and lend beauty to the homes of all mankind.—ELLA GUERNSEY.

FLORICULTURE.

I hail it as a good omen that floriculture in all its departments is so rapidly on the increase. It brings beauty and pleasure within the reach of all. It can not be monopolized by the rich. The petals of the scarlet Geranium are as brilliant grown in the cracked tea pot on the unpainted window sill as in the gilded jardinière behind the French plate pane; the Rose and the Honeysuckle as fragrant by the cabin door as by the marble front.

The cultivation of flowers is a rest for the overworked, a tonic for the invalid, and an innocent employment for those of leisure. "Mrs. Caudle" never said a truer thing than this: "There is something about a garden that makes one feel so innocent." Floriculture takes us out in the summer sun and dew and rain, and lets the gentle winter sunlight into rooms that were otherwise dark and gloomy, and thus adds to health and length of life. It is inspiring and instructive to watch the growth and development of plant life.

Let us encourage and assist all within our reach in the pursuit of this pleasant and wholesome pastime. There are no jewels however priceless that can vie with natural flowers for personal adornment. "Even SOLOMON in all his glory was not arrayed like one of these." Flowers are acceptable alike to the joyous and heavy hearted; they are never out of place. With them we decorate

the halls of mirth and gayety, and they are our last offering to the loved ones gone before.—AUNT FANNY, *Morningside*.

PELARGONIUM FRED. DORNER.

This monthly blooming Pelargonium continues to grow in popularity, and the demand for it increases as it becomes known. It is certainly a very valuable



PELARGONIUM, FRED. DORNER—REDUCED SIZE.

variety, and no greenhouse or conservatory can be quite complete without it. A few plants of it will keep up almost a continuous show of its beautiful blooms.

THE YUCCA AT HOME.

I have seen so many inquiries in the *MAGAZINE* during the past year about the Yucca, and the cause for its "lack of flowers," that I thought, perhaps, a few words from its native land, and the treatment it receives from Dame Nature, might prove interesting and may be instructive to the lovers of this stately and truly beautiful flower.

And first, let me say, that I have never found it growing anywhere but on the top or sides of some dry, barren hill, with no soil worth mentioning, where nothing else, save a stunted brush, which can almost always be found covering all such otherwise barren places, would grow, and let it be borne in mind by those who write about growing the Yucca "in a rich, moist soil," and "watering regu-

larly," that although its only soil here is a partially decomposed granite bed rock, with no other soil to cover it, yet it receives not one drop of moisture from May to November, but on some of the poorest and most inhospitable peaks I have found them growing ten or twelve feet in height, two-thirds of the stalk literally packed with its beautiful bells, and the whole air fragrant for yards around.

Perhaps some one can guess why those "richly planted," "well watered," specimens do not bloom.—Mrs. L. S. C., *Mesa Grande, Cal.*

CLOTHING A WOODED BANK.

Can you give me any advice under the following circumstances? On my country place is a wooded bank, sloping steeply down to a pond. The trees, a second growth from old roots, are not very good, but beneath them the bank was clothed with a dense and beautiful growth of under-brush. On one unlucky day, in my absence, the man in charge of the place, from some idea of neatness, set to work and cut down and hoed up all this under-growth, and raked the ground for a space of more than one hundred feet. The consequence is a naked bank, washed and torn into gulleys by every rain, and on which not even the dead leaves will lie. What can I plant on it which will, in some degree, repair the damages done? I have tried grass and Blackberry vines, but the shade and the wash have been too much for them. If you can give me any suggestions you will greatly oblige an old subscriber.—E. D., *Winchester, Mass.*

It is impossible to say positively what will succeed in clothing this bank. We should try Virginia Creeper and wild Grape vines, or one of the hardiest of the cultivated vines, such as the Clinton. Perhaps the Hazel-nut might live there. There are some long-growing species of Willow that thrive in dry grounds, and if these can be obtained they should be tried. It is probable that Vinca minor can be made to run over the ground.

BEGONIA LEAVES FALLING.

I have a Begonia rubra that I received in March, and it grew very well and is in bloom now, but the leaves turn black on the ends and fall off. Can you tell the reason why, and what to do with it?—T. A., *Carlyle, Ill.*

Be careful and not give the plant too much water. Turn it out of the pot and see if the roots are healthy and the drainage good. If the drainage should be stopped, remove some of the soil from the outside of the ball, and repot it with some fresh soil of equal parts of loam and leaf-mold and a little sand.

THE PURPLE FRINGED ORCHIS.

Now that the attention of many people in this country is turned to the cultivation of Orchids, and this taste is a growing one, we shall expect to see manifested a desire to make collections of the hardy native species of Orchids. It would not be difficult in a well kept garden to provide the suitable conditions for very many of them, and such a collection would be of great interest, not only for their beauty, which would not be little, but for their peculiar structure and oddness of form of many of them. It would be specially valuable to botanists and vegetable physiologists. The Lady Slippers, *Cypripediums*, the Fringed Orchises, *Habenarias*, and others would be showy, others less showy are yet beautiful, and many others are of remarkable form. It would certainly be praiseworthy to form such a collection, and if successfully made would attract many visitors. A bog which we have the pleasure of visiting has been gay for most of the last two months with the showy spikes of the Purple Fringed Orchis, or, as it is sometimes called, the Small Purple Fringed Orchis, in distinction from *Habenaria fimbriata*, as the Large Purple Fringed Orchis.

This plant stands from two to three feet high, clothed with its graceful foliage, and sends up a spike five to ten inches in length crowded with its beautiful purplish flowers. It is not at all difficult to cultivate this plant in moist ground, where one can command a supply of water. The writer of the *Orchids of New England*, in reference to this plant, says, "If I had my own way, it should never grow in bogs among coarse Pitcher Plants, it needs a richer background, but in ferny meadows bordering a sandy brook, as it does in a jealously guarded spot I know of in Guilford, Connecticut."

Habenaria fimbriata, and *H. peramœna*, are equally showy plants, and can be as easily cultivated; they can all or them be brought into bloom in the greenhouse by potting the plants early in spring, and keeping them well supplied with water during growth. In suggesting the wealth of species in this class of plants we may mention the names of Ladies' Tresses and Twayblade and *Pogonia* and *Calopogon* and *Calypso* &c.



HABENARIA PSYCODES.

OUR YOUNG PEOPLE.

MISS MUFFET'S DAHLIAS.

"I don't like those great, flaunting Dahlias right in front of the sitting-room windows. Some delicate, pretty vine will be more suitable. I'll just dig them up," and Mary Green, flushed and determined, pulled her big sun-bonnet further over her fair face, and, stooping beside the offending flowers, grasped the trowel in both gloved hands and prepared to fulfill her words.

"Good mornin', Miss Green," said a voice at her elbow, as she was plunging the trowel into the rich earth. "So you've got back hum from boardin' skule? S'pose your ma's mighty pleased to hev you, she's been a-lookin' for'ard to it so long, has Matilda. 'Twas only t'other day she was a-sayin' to me, says she, 'Huldah Parsons, when my Mollie gets hum,' says she, 'I'll be nigh onto happy's a queen,' if the queen's happier'n most folks, which I doubt. But that's neither here nor there. You oughter be's good ez pie to your ma, Miss Mary, she sets such a store by you. Why, she's spent many an evenin' a-weedin' an' diggin' in this little patch o' ground so's the flowers'll be a-bloomin' when you cum, 'stead o' restin' o' herself when she'd a oughta, arter her hard day's work at churnin' an' milkin' an' sich. I often wonder't she didn't die when your pa died, two years ago, an' I believe she would only the Lord gave her more grace than most o' us. 'Taint every gal's got sich a mother ez you, Mary Greene, an' I hope you ap'preciate it."

The young girl arose from her stooping position and pushed the sun-bonnet back with the back of one gloved hand, that she might better scrutinize her strange caller, who stood revealed in the broad light of the early morning, in all her angularity and ungracefulness and limp calico gown, made all the more apparent by contrast with the fresh-faced, graceful, neatly dressed girl beside her.

Now, Mary Greene was a warm hearted girl and generous, but her boarding school life had taught her the rules of

beauty and the graceful wearing of a dress, no matter how plain it might be, and the tall, angular, loosely-dressed woman before her caused her a feeling of what some young ladies would call "æsthetic horror."

"I'm sure," Mary's voice was sweet, but it could be cold, "I'm sure, madam, I thank you for your interest in mother and me, but——"

The other shrugged her sharp shoulders, as a great dog might shake off water from his coat. She uttered a queer, short laugh, too, which sounded very disagreeable, and made Mary wish she would not stand there, like an unpleasant invader of the pretty home-like garden and the clear, soft lights.

"Don't put on no airs with me, Mary," the woman said, still standing erect and stiff, her long arms and bony hands hanging straight down at her sides. "Don't put on no airs with me. I aint ust to't, an' 'twould only be throwin' of 'em away. Keep them fur the jedge's son, who lives up yonder in the big house on the hill, he might know what to do with 'em, I don't. I s'pose you're a-thinkin' what on airth did I cum fur to bother you when you was a-fixin your posies? I cum to borrow a pattern o' your ma, but I love posies, too, an' I like to see you a-weedin' 'roun 'em. My patch in front o' my winders is ez full ez yours is o' pooty blossoms. You look as though you sort o' didn't b'lieve me; well, it's true, just ez true ez the sermons the preacher gives us every Sabbath."

"I hope you've always been to meetin' while you was at skule. 'Twould a-worried your ma most to death ef she'd a-thought her child had staid 'way from the means o' grace. Your ma's never missed a meetin' sence you went away Holiday times, 'cept once, when she was laid up with rheumatiz she caught a-diggin' in this garden. She says she didn't get it here, 'twas 'cause she slipped into the spring down in the medder lot when she was goin' fur the cow, but I know

better'n that. Mas is mas, I'm one, so's I'd oughter know. But my gals' is, all boys, so's I don't hev such work a-fixin' up putty things fur 'em. All't they wants is a good meal, an' they'd jest ez leave the pigs'd root up the hull lot o' flowers ez not. I hev to keep 'em out myself."

"Air you a-goin' to dig 'round them 'ere Dahlias, Mary Greene, so's they'll blossom better? 'Tis a good way. I've tried it myself, an' hez always worked like a charm. I uset to envy you your Dahlias, they was so pert an' smart, but since I've digged 'round mine they've perked up wonderfully, an' I guess'll be 'most's good's yourn in a year or two. What beauties these air." And the long, bony fingers touched almost tenderly the dense red and purple blooms that rose almost with her broad shoulders.

"You oughter be careful, though, Mary, an' not hit the roots; Dahlias is hardy sort o' plants, but they'll thrive better if if you're sort o' tender with 'em, then ez though you hoed an' dug an' scratched 'em up rough, jest ez folks will. We all likes folks to be tender to us rather'n rough, an' flowers is the same, everything's the same, I believe. Look out, girl. You a'most cut that biggest stalk right square off by the ground. Be more careful next time, Mary Greene."

Mary, who had resumed her gardening, laughed a bit, scornfully, as she answered:

"Why, that's just what I am trying to do, cut them down. And not only that, but before I am through I shall have them out root and branch, the homely, awkward things."

For one moment her companion seemed stupefied. She stood quite still, one hand holding the half-bent blossom, the other hanging loosely at her side.

Then she spoke, and there was something in her voice that called out Mary's respect in spite of herself, or it may have been because of her finer self. At any rate, she paused in her work to listen to her companion.

"Mary Greene," said this woman, in a voice that was stern and trembling and horrified all in one. "Mary Greene, if you dig up that bunch o' Dahlias you'll break your ma's heart ez sure ez I'm born. I've lived longer'n you hev, child, an' I know what I'm a-talkin' of. Ef you dig up them air Dahlias you'll break your ma's heart. I know her, and I know

them. Why, child, we've lived in this 'ere village ever sence we was born, both o' us, and we've knowed each other that long, an' I tell you let them Dahlias alone ef you love your ma."

Mary struck the ground a trifle spitefully with the trowel, as she said, half laughing:

"No doubt you say all this with the best intentions under the circumstances, but you couldn't know my mother as well as I, and I know she'd not be so silly as to die over a few horrid, old-fashioned Dahlias."

Huldah Parsons—tall, gaunt, angular—drew herself up with a dignity that was almost graceful.

"Mary Greene, ef your ma didn't care so much for you, an' ef you didn't set so much by your ma, I wouldn't take the trouble to 'xplain; but ez 'tis may be you'd best know how 'tis, so's yout won't be a-hurtin' of your ma's feelin's 'bout these flowers. You needn't stop a-diggin', 'twill do the roots good to hev the dirt shook up, sorter, 'round 'em, and your ma'd be a mighty sight pleased to see you a-coaxin' her fav'rite flowers to grow. You see 'twas when we was gals together, your ma and me, an' we was al'ays together. No, I wont set down; I'll stand. I'm ust to standin'. Well, ez I was a-sayin', 'twas when we was gals, an' neither o' us thought no more'n kittens o' bein' ez we air to-day, both on us married an' with children o' our own. We was sort o' skittish, like colts air 'fore they gets broke to harness an' work, an' find life aint all skeedadlin' over the hills in the Clover. I've thought o' it lots o'times, an' come to the conclusion its good to let young uns run a bit wild so far ez hard work is concerned. They hev to drudge soon 'nough. Those air was happy days, an' we two galls sot an awful store by each other. You ust to know me when you was home, but a half dozen years et boardin' skule helped you to forget old Huldah Parsons, 'aunt Huld', ez you ust to call me. Well, once on a time a seamstress cum to your ma's house to sew. She wan't your ma then, she was jest pretty Allie Perkins, an' a prettier 'twould 'a been hard to find. I don't tell it ez I'd orter. I forgot you don't know it, and my mem'ry's good fer the old times. Well, ez I was a-sayin' a seamstress cum to

your ma's house to sew fer her ma. 'Twas in the spring, and Mrs. Perkins, your ma's ma, had been a-sittin' out plants an' a-sowin' seed in her front patch. O' course, they got to talkin' 'bout flowers, ez was only nat'ral, ez they sewed, an' it cum out thet Miss Muffet, that was the seamstress' name, was on-common fond o' Dahlias. She loved 'em. she said, 'special ez they was a-growin' on the graves o' her parents in England. She was an English woman an' a orphan, without a single body in all o' the world to care fer. But we didn't think o' that. We was young, an' young folks'll never be real thoughtful o' others nat'rally. So, when we found out little Miss Muffet—we all called her 'little Miss Muffet,' she was so gentle an' small an' sorter weak—when we found out she was fond o' Dahlias, an' that Miss Perkins was a-goin' to give her a big bunch that growed down by the gate, your ma says to me, says she, 'Let's pull 'em up, Huldy, an' hide 'em.' An' I, ez quick for tricks ez she, says, 'Let's.' But somehow, when we had crep' out o' the room, quiet as mice, an' got down the grass to the gate, an' Allie had got a-hold o' the whole bunch to pull't up, Miss Muffet seen us an' give a little cry, an' started to jump off the porch to get to us quicker'n to go down the steps; but her foot somehow got caught in a loose board, an' down she cum flat on her face, an' we was so scairt we dropt the flowers an' run for the barn, where we hid in the hay, an' didn't dare cum out till 'way late in the day, but nobody' missed us, they hadn't had no time, fer little Miss Muffet had broke her leg a-fallin' off the porch, an' they had so much to do a-thinkin' an' tendin' to her they'd never once thought o' us. An' do you b'lieve thet blessed little woman was the first one herself to ask fer us an' wanted us to go in an' see her.

Et first we wouldn't go, we thought she wanted to scold us o' somethin', an' we wouldn't go, an' your ma cried an' I cried. But fin'ly Allie's ma made us go, an' do you know, that dear, sweet, gentle Miss Muffet, a-lyin' on the bed, whiter'n the piller or sheets, just smiled at us an' drew us right into her arms an'—well, well, child, I didn't think I could be so 'fected et my time o' life; but when I talks 'bout it I forgets I'm old an' worn,

an' ken jest see thet gentle, smilin' face ez ef 'twas 'fore me now."

"What did she say?"

"Don't ask me, child. I couldn't tell you to save me; I don't remember it no more'n I guess your ma does.

"Did she get well?"

"Yes, sorter; she got up an' went 'round, but was never strong arter it, an' al'ays went on crutches. But she made wimmin o' your ma an' me. We was years an years older when she got up than we was when she fell that day a-runnin' arter us to save her flowers. An' what o' the Dahlias? Oh, yes, o' course, you air anx'ous to hear 'bout 'em. Well, when she got better so's she could go out, she'n your ma went out one day an' dug up those Dahlias by the gate, broke an' bent ez they was, an' planted 'em here by the winder where Miss Muffet could see 'em as she set an' sewed, for your ma's ma kep' her with 'em arter thet, ez was only right, in my kalkilation. An' when she died, yes, she died in a year or two, we planted half the bunch at the head o' her grave, ez she'd asked us to, an' they're a-growin' there now ez fresh, an' I sometimes think more so than when we first put 'em in the ground, nigh on to thirty years ago. But your ma and me's tended 'em an' watered 'em an' kep' the earth loose 'round 'em, so's they'd hev a good chance to grow, an' they hev, an' so's these here, an' your ma loves 'em ez though they was alive, I sometimes think."

"Your ma sets a store by you, Mary Greene, an' you loves her ez a gal always does love her ma, not sayin' much 'bout it, an' sometime lettin' her do lots fer yer when 'tain't at all needful, just cause she loves ter, an' you know it. You air hum frum boardin' skule now, till you gets married, ez all galls do, an' hev a fam'ly o' your own. What I said about the jedge's son was rale mean; I hadn't a orter said it, an' I asks your pardon. He's ez nice a feller ez any to be found in a long day's journey, an' ef you care for each other it's all right, only don't forget your ma. How do I know all 'bout this? Haven't I jest told you your ma and me's old friends? You'll leave the Dahlias where they be, an' take ez good care o' them ez your ma could. You love old-fashioned things; that's right, child. I always told your ma you

was a good gal. Your ma's in the settin'-room, an' will get me the pattern. All right. I'll go right in, ez I al'ays has. Dig all the earth up carefully 'round the

roots, an' keep 'em wet, an' you'll hev ez han'some Dahlias ez any one could hev, Mary Greene.—J. K. LUDLUM, *New York City, N. Y.*

STELLA RAY'S JOURNAL.

August 1. It is so long yet before the five o'clock train is due, which brings my guest, that I will jot down some points in this morning's review lesson of Harvey and Effie, for which I prepared them yesterday, as papa had begun to question them about their progress during the late unsettled state of the family. I did not

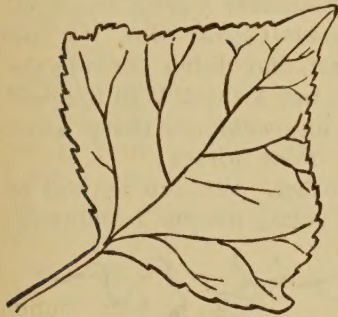


FIG. 1. DELTOID LEAF OF LOMBARDY POPLAR.

want Will to be present, lest he should be struck with something very absurd in my role as teacher, but was overruled. So, to be on the defensive, I gave him the list

of questions to ask, which obliged him to be on his dignity.

The children were delighted to show their big brother how much they knew, and begged to begin with their geometrical diagrams. Will observed the absence of the heptagon, and was surprised that we had found no seven-petaled flower to represent it. Then Harvey, eager to show another figure, drew a deltoideous form of a leaf, figure 1, showing how it outlined an obtuse triangle; and Effie, to match him, copied a leaf of peltate form, to show how nearly it described a circle, figure 2. Then Will, I'm sure, thought to tease me by asking them the meaning of "deltoideous," and "peltate," thinking they could not tell. But in their eagerness they tried to tell him both at once about the Greek letter and the target. Then Harvey suddenly exclaimed:

"Ho! what's the use of waiting for questions. I know what comes next, and I can say a lot all off at once. I want to get done." (I was going to check him, but papa shook his head.) "You see, everything in the world that breathes, or grows out of the ground is all made up of little cells. Well, these cells are in differ-

ent shapes, just according to how closely they are pressed together. In leaves, now, they're very loose, and sometimes have pretty shapes, like honeycomb. Here are some that Stella had me to copy from an engraving of magnified cells, figure 3. But to make hard wood the cells have to be packed so closely together that they get pressed into long, thin shapes in the trunks of trees, you know, just like these, figure 4; but they're never quite closed up with the pressure, because there's always a little sap in them going up and down the tree to keep it growing. Now, honest, Will, did you know about this before?"

Will broke into laughter for answer, and Harvey went on: "Well, if you did, why weren't you always talking about it, then? I never heard of anything so curious as that every part, hard and soft, of animals, and us people, and plants and trees, are made of cells put together, and —."

"Yes," broke in Effie, "and plants are almost like animals, 'cause they have lungs and mouths and skin. And, mamma, the mid-ribs and little veins in leaves are hollow, and carry sap to make the leaves grow. Isn't it funny! I copied some magnified cells and things, too, and here is a drawing that shows the mouths in a leaf for breathing in air and sucking in rain and dew." Figure 5.

There was more of their lessons, but I cannot give it here. But the cunning little drawings I shall gum into my journal as mementoes of the children's beginnings.

Evening. Brother Will would not go with me to the train, so I had to take

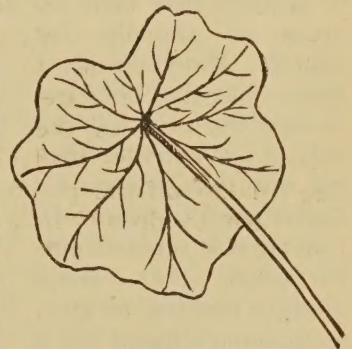


FIG. 2. PELTATE LEAF OF TROPAEOLUM.

Sambo and go without him. Carrie looked around when we met, as though expecting some one else, and I knew of whom she was thinking. As we were driving back she seemed to be taking in my costume. Finally, she said, "I expected to find you dressed in deep

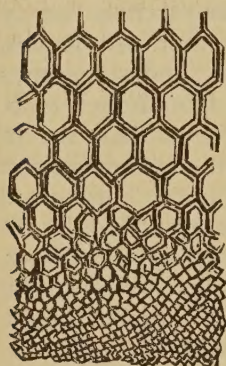


FIG. 3. LEAF CELLS.

mourning, but as it was only your grandpa, and he an old man —."

"It was not that," I hastily answered. Then she remarked, with a quizzical smile, "Mourning is not very becoming to brunettes."

"How could I think of that!" I said, with some feeling.

"If you must know, papa has always been opposed, on principle, to the wearing of mourning. Mamma knowing this, and having similar ideas, decided accordingly." So I came home cross to begin with.

2. Carrie and I went to church, to-day. Her toilette was wonderful. I fear that those behind her lost much of the good sermon. Had she been dressed thus for a concert or party, I could have enjoyed the splendor of her costume; but with the training I have had I could only think it in very bad taste to dress so showily for church. Many do so, I know; but that does not change the principle involved. When the offering was being taken up Carrie tried to seem—O, I mean, she seemed embarrassed that she'd brought nothing to give, so mamma slipped her a "quarter," which she graciously donated.

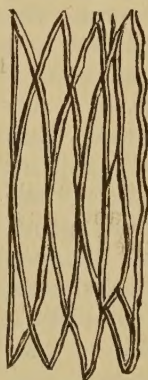


FIG. 4. WOOD CELLS.

I thought what mamma did was a nice little courtesy to show to a guest, and I intend to be as thoughtful myself when my time comes.

3. Mary Roland and two others of our Medley Club called to see Carrie, to-day.

4. Will took Sambo's place the day Carrie came, and manages to see little of her, except at meal time, and then is barely polite. I suppose she is vexed,

for she said to me, to-day, "How very bashful your brother is. A college acquaintance of his told me that he was jolly and amusing; yes, and very handsome. But, of course, different people see with different eyes." I came near retorting in a way that would have been unlady-like, and to a guest would certainly have been rude. I am resolved she shall not vex me into saying things that I shall regret.

6. Mamma made Will promise to take us for a drive, this evening, and so he invited Mary Roland, telling me that she was to sit on the front seat with him. But by some maneuver Carrie managed — what *ails* me! — Carrie was left for Will's seat at last, and didn't seem in the least miserable, but I think Will touched up the horses unnecessarily sharp when we started off. Poor horses!

7. Callers, to-day. We are invited to join a picnic of young people, to-morrow,

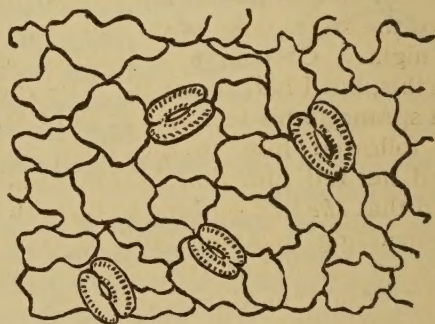


FIG. 5. LEAF EPIDERMIS, SHOWING STOMATA OR BREATHING PORES.

at Glen Grove. Carrie's delighted; so am I.

8. We've had a lovely day. Glen Grove was in holiday attire. Carrie was wholly entertained by other girls and their brothers, and I was royally entertained by all I saw and heard.

9. Carrie declined going to church, to-day; thinks the sermon last Sunday was very stupid.

10. This morning, my guest told me she dreamed last night that I was going to make a party for her. I wonder if she thought I believed it. And yet, how do I know that she did not dream it? She is likely to have no lack of entertainment since making the acquaintances that she did at the picnic, and already she has several engagements out. Any way, there'll be no party made for her at my instigation.

12. My journal, of late, is full of Carrie

Stone ; but I can't help it, my life is full of her just now. Tuesday evening some of her gentlemen callers staid rather late, and I told her that papa was more lenient with them than with my callers, and laughingly added, that I did not like him to show so much partiality. But this very evening, it is now eleven, and if I could sleep I should not be writing, a young man who was never in our house before did not leave at ten, as he should have done, or sooner, and was still talking glibly with Carrie at a quarter past, when the alarm clock began to clang, up stairs, and continued to make its fearful noise without ceasing until the young man remarked :

"Your father, Miss Ray, has a very demonstrative clock."

"My father," said I, "is quite particular about the hours his family keep, and I may as well be frank and tell you that his clock will continue to demonstrate his ideas on that point until he shall have heard the street door open and close for the night." Of course, I laughed as I said this, but I had to say it. The young man sprang to his feet and so did Carrie. She followed him to the door, and I heard her tell him that he must understand that *she* had nothing to do with his embarrassing treatment, and he replied, "I've no doubt but Doctor Ray is quite right." And then Carrie went directly up to her room without speaking to me, and here I sit with burning cheeks, using my pen as a safety valve. But I have heard mamma tap on her door and go in, so everything will be made right with Carrie.

17. To-day, Carrie met the Havens, and afterward remarked: "What very common people they are. I wonder you folks care to know them." I was roused instantly, but remembered in time and quietly answered:

"O, we really enjoy them. They are entirely respectable, and such wholesome, good-hearted people that to meet them occasionally is like letting a new element of something refreshing into our lives." I am glad I said only this. I suppose a true lady never forgets herself, neither a *true* christian, and with them both it must be easy, while I have to keep myself down with iron bands of will, which proves that I am neither the one nor the other

24. To-day, Carrie and I were out shopping. Of course, our merchants had nothing to suit her, and she put each clerk to confusion by criticising the quality and prices of goods, as though he himself had made them and fixed the values. Finally, she laughed at me because I had made a purchase without trying first to lessen the price. I told her that papa says that regular dealers have but one price, except for those who always insist upon a reduction, and that salesmen soon learn to know these and to ask an extra price to begin with, so as to accommodate them. "And I have been told," said I, "that clerks sometimes get adroitly out of the way when certain persons enter the door, considering it a good joke on the one who gets caught, and has to listen politely to the disparagement of his goods and cheapening of prices."

26. I really feel quite weary with the strain of trying to repress all the cutting things that girl excites in me to say. She thinks Mehetable's shawl is very hot-looking work to be knitting on this weather. It is nearly done, and then I shall crochet some slippers.

31. I have had two days' respite and rest. Carrie left on the 29th, just four weeks after her arrival. I could fill my entire journal with the records of those days, but have already written quite too much, unless it were of a very different character.

And now I have something else to think of that is truly refreshing, the more so, perhaps, because so unexpected. It seems that my parents have all along been planning a trip, or visit, or both for me, and now that all preliminaries are settled beyond reasonable disappointment, I find that I am really to start in two days to meet Uncle and Auntie Starr at their cottage retreat on Lake Occident, a long way from their city home. Harvey is to go with me, which will be delightful for both of us. Uncle has a vineyard of his own planting on the valley slope of the big hills, and he is so in love with it that papa says he will live the longer for its possession. The place is known in the family as Vine Valley Vineyard, represented by the triple letter, V. V. V. It all seems like a bit of poetical romance that must vanish before our eyes can see it.

EDITOR'S MISCELLANY.

GOVERNMENT SEEDS.

The distribution of seeds by the Department of Agriculture was one of the subjects discussed at the third annual meeting of the American Seed Trade Association, held in this city, in June last. The following extract from the minutes, furnished us by the Assistant Secretary, C. L. ALLEN, will be read with interest:

This subject being under consideration, the President called upon JAMES VICK, Esq., for his views, who replied as follows: "I know very little about it; I have with me a little package that I received last winter by mail. It is a collection of seeds from the Department. I do not really know enough about the Department to know what their object is in distributing seeds, whether they only intend to send out new things, or what the aim of the institution is. But the stuff that I received is a package of Peas, Beans, etc., of the most ordinary character. I know of a firm that sold a quantity of Beans to a dealer that he sold to the government at about six dollars per bushel, the same stock the firm were about throwing away, as they were considered worthless. And I have heard of the European houses laughing many times of the sales they have made to our government."

"Now to look backwards, while you were talking about duties, some of you were paying twenty per cent., and I know some of you would be willing to pay one hundred per cent. duty on your seeds. I have no doubt that we would make some money if the duty was one hundred per cent. Ours is the only line of trade where the government is in competition with its citizens. I think what I have said here is, possibly, enough to show the absurdity of the Department. I consider it an absurd institution that wastes a great amount of money."

Mr. WOOD, of Richmond, Va., said: "I think that what we have to contend with is the Congressmen. This Department is, in reality, for their benefit, because they go through the country soliciting votes, and they request of the Department seeds for distribution. Consequently it is really a bribe to gain a vote. And I do not see how to expose the business, except through the newspapers. I know that last year there was a large quantity of White Beet seed in my neighborhood, worth about seventy-five cents per bushel, which was sold to the Department for \$2.00 per bushel."

Mr. VICK stated that there was a notice in one of the papers that the government had contracted with a large canning establishment for its Tomato seed, an article which no seedsman would think of using.

Mr. WOOD said that he did not think the government was the first to distribute any new variety of value, but took up anything that favored seedsman had to offer.

Mr. BURPEE, of Philadelphia, thought the government ought to distribute its patronage among the different States, if it was to do a seed business; that his house had only received an order for twenty bushels of Sunflower seed, which was not introducing a very valuable production.

The President said he would like to know if there was any one present that could offer a suggestion whereby this branch of the government could be stopped from sending out free seeds; if not, there was not much use in discussing the subject. It is a great absurdity, and comes in competition with every seedsman in the country, and is a great injury to the trade in general.

Mr. McCULLOUGH, of Cincinnati, said: "That the

height of good statesmanship was compromise. I think that in an agricultural country like this the government ought to do something for agriculture. I think it a waste of money to send out such things as we are familiar with. But I do think the government should annually spend some money on rare and unusual things, coming from a distance, where, perhaps you cannot go for them. For the reason that in a country that depends so largely upon agriculture for its prosperity, there ought to be money supplied for the introduction and distribution of any seed or plant that can be successfully cultivated in this country."

"Now, if we go to the government and report to them that their method is wrong, but that their principle is right, and suggest to them a better way, perhaps we might accomplish something that would mutually benefit the trade and the country."

"THE WILD FRUITS OF COLORADO."

Noticing the article, "Wild Fruits of Colorado," by MARION MUIR, published in our May number, Mr. MEEHAN, editor of the *Gardener's Monthly*, in its last issue endeavors kindly to supply, by the descriptions, the names of the plants there referred to. As Mr. M. has traveled in Colorado and other parts of the west and made a particular study of the vegetation of those parts, his remarks are both appropriate and valuable. Of the Plum, which the writer described, Mr. M. says: "It is probably the same as the Beach Plum of the east, *Prunus maritima*, which the editor has gathered in that region." He further says: "The Choke Cherry is not the one of that name in the east, *Prunus Virginiana*, but *P. demissa*. It is worthy of note that the editor has seen this in this mountain region as fully covered with the Plum knot as in the species common in the east."

"The Wild Mulberry is not *Rubus odoratus*, as she says, but *Rubus deliciosus*." The Poison Currant, he says, "is probably the Aromatic Rhus, *Rhus aromatica*." The Mustang Grapes are thought to be *Vitis Arizonica*, of ENGELMANN, and the Oregon Grape, *Berberis aquifolium*—the "variety repen."

AMERICAN POMOLOGICAL SOCIETY.

It is with pleasure that we again remind our readers of the meeting of the American Pomological Society, which is to be held at Grand Rapids, Michigan, commencing September 9th and continuing three days. The venerable President, Colonel MARSHALL P. WILDER, is expected to be present, and this fact of itself should call together many horticulturists.

Some of the best pomologists and most enterprising nurserymen and fruit growers of the whole country will there meet together, and interesting and instructive papers will be read, and discussions held on the principal subjects that relate to the business of fruit growing.

A large exhibition of select fruits is expected. The meetings and exhibition are open to the public, and no one interested in horticultural pursuits can attend without being greatly benefitted. Any information desired in advance in regard to the meeting can be had by addressing the Secretary, Prof. W. J. BEAL, Agricultural College, Lansing, Michigan.

Fruits sent for exhibition should be addressed to CHARLES W. GARFIELD, Grand Rapids, Michigan, and at the same time a letter or card should be sent, informing him of the shipment.